Lectures
ON THE
VARIOUS FORMS OF HYSTERICAL OR FUNCTIONAL PARALYSIS.

By H. CHARLTON BASTIAN, M.A., M.D., F.R.S.,
PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE IN UNIVERSITY COLLEGE, LONDON; PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL, AND TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

LECTURE I.

CASES of paralysis belonging to the functional category are, for many reasons, pregnant with interest. The clinical studies of neurologists are of such a nature as to make them accustomed to the unravelling of complex combinations of symptoms, and the referring of these to one or other form of lesion or functional degradation affecting some particular tract of the nervous system. But, especially when we have to do with cases of functional disease of the nervous system, we are often more than usually perplexed if we desire to carry out our customary method in diagnosis—that is, if we seek to obtain some rational explanation of the causation and mode of production of the combination of symptoms with which we are brought face to face. Our difficulty would be less, of course, if we were content, as many are, or as others sometimes have to be (however much it may be opposed to their wishes), with a mere tentative or preliminary diagnosis. To say that a given case is one of "hysterical" or "functional paralysis" is at best but a half diagnosis, and may be a positive error. Again, there may be no evidence or reason whatever for saying that a given case is one of "hysterical paralysis" simply because it seems to belong to the class of functional paralyses. Hysteria is, after all, only one of the general conditions under the influence of which paralyses of a purely functional type may develop themselves. Because a case belongs to the latter category, therefore, we must not on this account look upon it as necessarily hysterical in its origin. But this is what is only too frequently done; and the danger is that when he does so the practitioner should be apt to think that he is required to go no further. The error here is a double one: in the first place, it should be recognised, as above indicated, that there are many cases of functional paralysis which cannot be rightly or on any reasonable ground described as hysterical; and, secondly, whether we make use of the narrower or of the broader term it is equally imperative that no intelligent observer should rest satisfied with a diagnosis which has merely attained this degree, I will not say of perfection, but rather of imperfection.

My justification for speaking thus may be all the more readily appreciated if it be considered that the term "hysterical paralysis" or "functional paralysis," whichever may be used, constitutes only the first approximation to a diagnosis. We merely imply by the use of such terms that we think we are warranted in saying that the case before us is not one which has been caused by any gross organic disease of the nervous system, and that no causative changes therein would be detectable, even with the aid of the microscope. We leave entirely unanswered the other ordinary problems which go to constitute a complete diagnosis; nothing is said, that is, as to the part of the nervous system which is at fault, or as to the nature of the process by which its functional activity has been impaired. In other words, the problems of a regional and of a pathological diagnosis are alike untouched. But, incomplete as such a diagnosis is, there are many reasons why it should be one which is very frequently arrived at, much more frequently, indeed, than is really warranted. The diagnosis of diseases of the nervous system is often difficult and baffling enough even to experts, and is proportionately more so to those who see less and less of such cases. But, as a matter of fact, for any practitioner, skilled or unskilled, justly to arrive at the diagnosis "functional paralysis," he must face and overcome problems of extreme difficulty. The reason for this is not far to seek; he may be comparatively familiar with the combination of signs and symptoms the presence of which would warrant him in concluding that he has before him a case, say, of hæmorrhage into the pons Varolii, a case of acute spinal paralysis, or a case of locomotor ataxy; but how infinitely more complex is the work of memory and reasoning that has to be gone through before he is entitled to come to such a diagnosis as "hysterical paralysis" or "functional paralysis." Such a diagnosis means, when unfolded, that we are satisfied that the combination of symptoms before us is such as not to be explicable by any known or unknown organic disease of the nervous system. But what a very skilled and practical knowledge of nervous diseases is needed before any one of us is in the least degree fitted to come positively to such a negative verdict. Still, as a matter of fact, it may safely be said that the more slender and insecure a man's knowledge is of nervous diseases the more prone is he to regard what may be to him strange or puzzling cases as instances of "hysterical paralysis" (often enough to the detriment of the patient and his own ultimate discredit); while the wider and more comprehensive is his knowledge of such diseases the less frequently does he make or rest satisfied with such a diagnosis. The much wider experience of the neurologist, in fact, renders him secure against many of the pitfalls into which his less experienced colleagues might be betrayed. He has, for instance, a much greater chance of recognising the protean forms of disease to which disseminated sclerosis gives rise; he is similarly less apt to fail to recognise Friedreich's disease, the paralysis associated with spinal caries, or a case of chronic spinal paralysis, and to believe that he has before him forms of functional or "hysterical" paralysis. The fact is that to arrive at a thoroughly warranted positive diagnosis of "functional paralysis" is mostly impossible even to one who has a very extensive acquaintance with nervous diseases; at the most such a diagnosis may be regarded as more or less probable. He is not so likely as one with a less extensive knowledge of such diseases to be led astray by the fact that the patient before him is the subject of undoubtedly hysterical symptoms. He knows, rather, that such cases require the exercise of more than usual care and discrimination, because of the great frequency with which hysterical symptoms are associated with those of actual organic disease of the nervous system. He knows, too, that he must not confound the mere emotional weakness of a nervous patient suffering from structural disease with hysteria; and must still less suppose that its presence suffices to account for all symptoms, and gives warranty to a facile but erroneous diagnosis of "hysterical paralysis." The strange way, too, in which restitution of function has been known to occur in cases of experimental section of the spinal cord in monkeys (as in the experiments of Mott on the results of hemisection of the cord) should make us very careful how, even in looking back upon clinical histories, we base our opinion that in a given case we have had to do with functional disease merely because of the extent to which recovery has taken place. Similarly it must be borne in mind that in certain obscure cases a speedy recovery from a set of symptoms, giving colour to a diagnosis that the morbid condition was one of functional origin, may, after all, carry with it no such warranty, since the temporary morbid symptoms may in reality have been due to a thrombosis which after a time resolved. It must not be forgotten, in fact, that justly to arrive at a thoroughly warranted diagnosis of "functional paralysis" in any given case is often a matter of the most extreme difficulty as well in the early as the latter stages of their progress. It may, of course, be frankly conceded that in many other cases the problem is much simpler, and the margin of possible error altogether narrower.

To arrive at the conclusion that we have to do with a case of "functional paralysis" is, of course, an all-important matter from the point of view of prognosis and of treatment alike. But, as I have said before, it is not a diagnosis in any proper sense of the term. To make our conclusion in any way complete, we must strive to go some steps further, so as to form a notion as to the region of the nervous system that is at fault, and also as to the nature of the pathological condition which causes a failure of functional activity in the part in question. But the difficulties which beset us are here again extreme.

Take, first of all, the question of the region affected in any given case of functional paralysis. A preliminary difficulty stares us in the face at once. Are these cases partly of cerebral and partly of spinal type? Probably; but as to this there is no certainty, because nothing is definitely

known at present as to the real grounds for making any such differential diagnosis. No reason can be assigned why functional failure should not occur from time to time, in favourable subjects, in any part of the nervous system; though, as a matter of fact, it may be perfectly true that some regions are much more prone to experience this failure than others. We have, however, scarcely approached the threshold of anything like knowledge as to this matter. It has long been customary, as is well known, to attribute cases of hysterical paralysis to some defect of "will," and therefore to regard them as presumably due to cortical defects. This sort of interpretation is applicable even where the paralysis is of paraplegic type, and still more where it is a monoplegia affecting one lower extremity. And, as illustrating what I have previously said concerning the difficulty of diagnosing cerebral from spinal cases of functional disease, it may be stated that no rules of any kind are laid down in text-books upon the basis of which we may discriminate whether any such crural monoplegia is in reality due to functional disease of the cerebral cortex, or to functional defect in the lumbar region of the spinal cord. On this subject I hope, however, further on to be able to direct attention to one or two important characteristics the presence or absence of which may help us to make such a discrimination.

Again, if we take the brain itself, it may easily be recognised how meagre is our knowledge of the symptomatology of functional diseases affecting different regions of this complicated organ. As to the cerebellum, it may fairly be said that we know nothing concerning its functional diseases. While as to the cerebrum, what we know with any approach to definiteness on this subject seems to be limited to three regions; that is, (*a*) to a region involving some portion of the Rolandic convolutions; (*b*) to a region involving the posterior third of the hinder segment of the internal capsule; or (*c*) to a region involving some of the outgoing fibres from these convolutions. As to the symptomatology of functional defects of other regions of the cerebrum capable of producing paralysis nothing is practically known; and the obstacles in the way of our obtaining any such knowledge are of course extreme, seeing that from the very nature of the affections we are cut off from the means of localisation which hold good for diseases of an organic type, where we have to do with changes that are recognisable either by the naked eye or by the aid of the microscope.

No less extreme are the difficulties in coming to a decision as to the nature of the pathological condition which brings about the failure in functional activity in this or that part of the great nerve centres. Is this failure to be ascribed to imperfect blood-supply, or is it due to some primary failure in nutritive activity on the part of the nerve elements themselves in the part in question? The first is undoubtedly the more popular explanation; still, it is one which is to a great extent unsupported by any distinct evidence in its favour. It implies, in the first place, the existence of vaso-motor nerves throughout the cerebral and spinal vascular system. Very probably these do exist; still, for the present, actual proof of their existence is wanting. On this subject Michael Foster[1] writes: "One would be led to suppose that the brain possessed special vaso-motor nerves of its own; and recognising the importance of blood-supply to rapid functional activity one would perhaps anticipate that by special vaso-motor action the supply of blood to this or that particular part of the brain might be regulated apart from changes in the general supply. The various observations which, however, have been made have failed to demonstrate with certainty the existence of any such special vaso-motor nerves or fibres directly governing cerebral vessels." He, however, adds: "It would be hazardous to insist too much on this negative result, especially since the observations have been chiefly directed to the nerves of the neck, the experimental difficulties of investigating the presence of vaso-motor fibres in the cranial nerves being very great." A condition of more or less extreme spasm of the vessels in certain brain regions, if such vaso-motor nerves exist, might, of course, be supposed to be a very efficient cause for completely or partially abolished functional activity in such brain regions, and consequently for the production of paralysis, motor or sensory. But the probability of the truth of such an explanation very sensibly diminishes when we bear in mind the fact that paralyses of this type may last more or less continuously for weeks, months, or even years. It is difficult to understand vaso-motor spasms in brain regions lasting for such prolonged periods, because when we see vaso-motor spasms occurring in external regions of the body their duration is usually to be measured by minutes, or at most by hours, rather than by weeks, months, or years. It is true, however, that there does seem to be a durable, partial, vaso-motor spasm oftentimes in the limbs of one or both sides of the body in these patients (where hemianæsthesia, single or double, exist), if we are to judge from the difficulty in extracting blood by even deep needle pricks on the hemianæsthetic side of the body. The absolutely sudden onset, or the sudden cessation, of functional paralysis in other cases, certainly points very strongly in favour of vaso-motor spasm as a cause of the affection. And, perhaps, the vaso-motor spasm need not be extreme. It may be that for brain or spinal cord regions to manifest their proper functional activity a full blood-supply is required; so that if this is diminished by one-half, or even one-third, a very distinct failure of function may be the result. It may happen that the amount of blood supplied to the affected ischæmic brain or spinal cord region is just sufficient, in many cases, to enable its nutritive condition to be maintained; while in other cases the amount of blood supplied may be even too small for this, so that actual degradation of structure results—a degradation sufficient to prevent proper functional activity, yet not perhaps sufficient to result in changes easily detectable by the aid of the microscope, even if the opportunity were forthcoming. In cases of the former type, the abrupt recoveries that occur in some cases where we have to do with functional paralysis are explicable enough; and, on the other hand, where we are concerned with cases of the latter type we may expect that recovery will be much more slow and protracted, when the disease has been of long duration, since, even after the primary cause (the vascular spasm) has been made to disappear, it still remains, before functional activity can be properly manifested, to restore to the previously starved tissues the nutritive standard needful for healthy activity.

If we do not appeal to a primary vaso-motor spasm as the cause of the functional paralysis, our difficulties seem to increase rather than to diminish. Yet such an explanation seems decidedly less probable where, as not unfrequently occurs, the paralysis in question is of gradual onset. On the other hand, a primary limited failure of nutrition, not of ischæmic origin, but entailing, merely as a consequence, a diminished flow of blood, is still more difficult to understand. Such local failures of nutrition may, of course, occur independently of a primary vascular change, but of this, as a fact, we know nothing. Nor is it easy to imagine what the determining cause of any such localised nutritive failure can be. Still, it must be recognised that the activity of nervous elements differs in different individuals, and, moreover, that it seems to differ also in different parts of the same brain as a matter of original endowment. In other words, we know that different individuals vary notably in the excellence of their nervous endowments (dependent as this may be, in part, upon varied excellence in degree of organisation; and, in part, upon a different intrinsic excellence in the molecular structure and activities of the nerve elements themselves); and similarly, that the different powers or faculties of the same individual may be of very various degrees of excellence because of differences of organisation or of intrinsic activity of nerve elements in related areas of the brain substance. The celebrated musician has one set or system of nerve elements of surpassing activity and sensitiveness, just as the celebrated painter or the celebrated mathematician may have other sets or systems of nerve elements of surpassing sensitiveness. Such connate and inherent differences in intrinsic activity of nerve elements in different parts of the brain may exist quite independently of local variations in vascular supply as a cause thereof. It is not the same kind of thing, but it is perhaps something like it, if we assume that the original standard of nutrition may not be maintained, that it may become degraded in fact at times in some individuals, for no assignable reason, and quite independently of any primary alteration in the blood-supply to the part. I say "primary," because a lowered nutritive activity would infallibly entail as a sequence a lowered blood-supply. The old maxim, *ubi stimulus ibi fluxus*, seems to be one which is pre-eminently true in regard to nerve tissues, so that an exaltation or diminution of functional activity in any part of the brain or spinal cord almost

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inevitably carries with it a corresponding increase or diminution in the amount of blood brought to the part.

After these preliminary remarks we may now turn to a consideration of the characters distinguishing some of the different types of "functional paralysis." It will be advantageous first to deal with some of those of a cerebral type; and secondly, to consider some of those forms which may fairly be deemed to be rather of spinal origin.

CASES OF FUNCTIONAL PARALYSIS OF CEREBRAL TYPE.

(*a*) *Cases due to defective functional activity in some portion of the Rolandic convolutions, comprising the kinæsthetic area (that is, the so-called "motor area").*—The first case of this type to which I have to refer is one of a very rare kind (so far as present records go), and exceedingly interesting because of the light that it helps to throw upon the real functions of the convolutions in the so-called "motor area," as well as upon the actual physiology and mode of production of voluntary movements. It is well known that, following the teachings and experiments of Hughlings Jackson, Ferrier, and others, there was for some time a very general consensus of opinion that these convolutions contained "true motor centres" concerned with the execution of voluntary movements. This interpretation, however, I and others have from the first opposed. I have denied that any satisfactory evidence exists to prove the presence of real motor centres in any part of the cerebral cortex. I have denied, moreover, that there is any physiological or psychological reason for postulating the existence of any such centres.[2] I have asserted, on the other hand, that a special class of sensory centres—namely, those registering kinæsthetic (sense-of-movement) impressions—are really needed in the cerebral cortex to do the work, or an essential part of it, that is supposed to be performed by the hypothetical and altogether imaginary cortical "motor centres" which have been so much spoken of for the last twenty years.[3] I have further endeavoured to show that these kinæsthetic centres for different parts of the body are located, just as the corresponding motor centres were supposed to be, in different parts of the Rolandic and mesial convolutions. In short, if all the experimental and clinico-pathological facts be accepted on both sides, the question of interpretation still remains. Do the convolutions in question contain simple motor centres, or are they rather sensory centres of a kinæsthetic order? Ferrier, and those who think with him, say they are motor and motor only; I, on the contrary, maintain that they are sensory, that they are, in fact, all-important centres in which impressions derived from, and occasioned by, movements are registered. There is fortunately one means by which this doubt may be resolved. According to Ferrier, the loss of functional activity in these convolutions results in a loss of motility only; that is, without coincident impairment of any mode of sensibility. I, on the other hand, maintain that the loss of function in these convolutions entails a loss of muscular sense in corresponding parts of the body, and that the motor paralysis that exists is produced by, and directly consequent upon, this loss, for reasons which I have elsewhere defined. Victor Horsley, in an able article, has recently proclaimed himself a convert to the truth of my interpretation, as well as to the reasons upon which it is based. In *The Nineteenth Century*, June, 1891, p. 859, he says: "With the object of concentrating attention on the vital importance of grasping the causal nexus between these sense-impressions of movement and the actual subsequent motion, Bastian coined the term 'kinæsthesis,' meaning thereby the sense of movement—i.e., the sum of all the sensory impressions just referred to; and, further, he, in addition, postulated the view that such kinæsthesis, or sense of movement, strain, effort, &c., must naturally find its seat or localisation in the so-called motor or Rolandic region of the brain, since undoubtedly voluntary impulses issue therefrom. It is this postulate which embodies the great importance of kinæsthesis, or the so-called muscular sense, to psychology and neurology, and it is this relationship which it is hoped may be considered to be demonstrated by the facts now to be related." He has been influenced largely by the observation of cases of cortical disease, and by the fact that in the various operations which he has performed for the removal of portions of the cortex in the human subject from the Rolandic area he has found loss of muscular sense in the corresponding part; and especially when the arm centres have been removed, because it is in the upper extremity that the presence or absence of this endowment can best be tested. The case about to be related seems to show the same kind of defect resulting, not as a sequence of structural disease, but from a functional degradation in the so-called arm centres. Charcot has recorded several allied cases of a very interesting kind, though in them other modes of sensibility were just as gravely affected as the muscular sense. In my case these other modes of sensibility were scarcely at all affected at one time, and subsequently only to a minor extent. The reason of this important difference will be referred to further on.

Rhoda R——, aged twenty-three, a nurse in one of the large London hospitals, was admitted into the National Hospital for the Paralysed and Epileptic under my care on April 10th, 1889, with the following history. Eleven weeks ago she fell heavily on her right shoulder whilst going upstairs, and when seen on the following day there were bruising and ecchymosis with extreme tenderness at one spot over the outer end of the clavicle; movement was limited and caused great pain; there was slight crepitus, but no displacement. "Fractured clavicle" was accordingly diagnosed and treated, and no attention was paid to motility or sensibility at the time. When "taken down" a month after, she could move the right hand and forearm freely, but not the upper arm or shoulder. This was thought to be due to slight stiffness resulting from fixation. She was encouraged to move it gradually, by a mark on the wall, and some passive movements were employed daily, but no progress was made. At the end of a week the hand and forearm could not be moved, the hand hanging powerless at the side. Some paralysis was now suspected, and it was found that when the arm was held up at a right angle it would fall very slowly and gradually. Some rigidity was noticed on suddenly raising or lowering it. Sensation was absent all over the limb, pins could be stuck into it without causing any pain, and no bleeding followed their removal; only pressure was appreciated. When told to move her arm no movement resulted, but the opposite side of the body was forcibly flexed laterally, as though an effort were being made to support some heavy weight from the shoulder. An electrical examination showed no diminution in excitability in the muscles, which responded readily both to the faradaic and to the galvanic currents, and equally so on the two sides. But faradaism seemed to cause great pain even with an extremely feeble current. She was subsequently treated with faradaism, the cold douche, and massage, but without any improvement, though she stated every morning she was "much better." (The foregoing notes were kindly sent to me by Mr. Ernest E. Lewis, house-physician to Dr. Coupland, after the latter was good enough to transfer this patient to my care.) After admission the patient herself added the following particulars. She confirmed the account that she was at first, after the removal of the bandages, able to move all parts of the arm feebly, except the shoulder. The arm then began to feel very heavy, and as if very large; it also tingled very much. This condition persisted a few days, and then she found that the arm was quite powerless, and that she could not feel when it was touched. The day before she lost power and feeling in the arm the subjective sensations were very much worse, and the arm ached a great deal. On awakening the next morning she found it in a helpless condition. She remained in much the same state till ten days ago, "when feeling returned, and since then a little power of movement." The patient had previously enjoyed very good health; she had suffered from no nervous diseases, nor was there a neurotic family history, except that a younger sister became paralysed on the right side after fits when teething, though she is now well, and has had no recurrence of the fits. Present condition: The patient is a well-nourished, healthy looking young woman, complaining of loss of power in the right arm. The arm is wasted to a very trifling extent as compared with the other, and the muscles are slightly less firm. Patient can shrug the shoulder, but otherwise cannot perform any of the movements of the arm or hand. When she tries to move the fingers or thumb of the right hand there is just the slightest visible result (a slight tremor in the fingers she is trying to move). No rigidity, and passive movements at all the joints are free and painless. The reflexes at the triceps and the wrist are a little more free than they are on the left side. Sensibility to touch and

[2] The Brain as an Organ of Mind, 1880, pp. 581-588.
[3] "Brain," April, 1887, pp. 75 *et seq.*

known at present as to the real grounds for making any such differential diagnosis. No reason can be assigned why functional failure should not occur from time to time, in favourable subjects, in any part of the nervous system; though, as a matter of fact, it may be perfectly true that some regions are much more prone to experience this failure than others. We have, however, scarcely approached the threshold of anything like knowledge as to this matter. It has long been customary, as is well known, to attribute cases of hysterical paralysis to some defect of "will," and therefore to regard them as presumably due to cortical defects. This sort of interpretation is applicable even where the paralysis is of paraplegic type, and still more where it is a monoplegia affecting one lower extremity. And, as illustrating what I have previously said concerning the difficulty of diagnosing cerebral from spinal cases of functional disease, it may be stated that no rules of any kind are laid down in text-books upon the basis of which we may discriminate whether any such crural monoplegia is in reality due to functional disease of the cerebral cortex, or to functional defect in the lumbar region of the spinal cord. On this subject I hope, however, further on to be able to direct attention to one or two important characteristics the presence or absence of which may help us to make such a discrimination.

Again, if we take the brain itself, it may easily be recognised how meagre is our knowledge of the symptomatology of functional diseases affecting different regions of this complicated organ. As to the cerebellum, it may fairly be said that we know nothing concerning its functional diseases. While as to the cerebrum, what we know with any approach to definiteness on this subject seems to be limited to three regions; that is, (*a*) to a region involving some portion of the Rolandic convolutions; (*b*) to a region involving the posterior third of the hinder segment of the internal capsule; or (*c*) to a region involving some of the outgoing fibres from these convolutions. As to the symptomatology of functional defects of other regions of the cerebrum capable of producing paralysis nothing is practically known; and the obstacles in the way of our obtaining any such knowledge are of course extreme, seeing that from the very nature of the affections we are cut off from the means of localisation which hold good for diseases of an organic type, where we have to do with changes that are recognisable either by the naked eye or by the aid of the microscope.

No less extreme are the difficulties in coming to a decision as to the nature of the pathological condition which brings about the failure in functional activity in this or that part of the great nerve centres. Is this failure to be ascribed to imperfect blood-supply, or is it due to some primary failure in nutritive activity on the part of the nerve elements themselves in the part in question? The first is undoubtedly the more popular explanation; still, it is one which is to a great extent unsupported by any distinct evidence in its favour. It implies, in the first place, the existence of vaso-motor nerves throughout the cerebral and spinal vascular system. Very probably these do exist; still, for the present, actual proof of their existence is wanting. On this subject Michael Foster[1] writes: "One would be led to suppose that the brain possessed special vaso-motor nerves of its own; and recognising the importance of blood-supply to rapid functional activity one would perhaps anticipate that by special vaso-motor action the supply of blood to this or that particular part of the brain might be regulated apart from changes in the general supply. The various observations which, however, have been made have failed to demonstrate with certainty the existence of any such special vaso-motor nerves or fibres directly governing cerebral vessels." He, however, adds: "It would be hazardous to insist too much on this negative result, especially since the observations have been chiefly directed to the nerves of the neck, the experimental difficulties of investigating the presence of vaso-motor fibres in the cranial nerves being very great." A condition of more or less extreme spasm of the vessels in certain brain regions, if such vaso-motor nerves exist, might, of course, be supposed to be a very efficient cause for completely or partially abolished functional activity in such brain regions, and consequently for the production of paralysis, motor or sensory. But the probability of the truth of such an explanation very sensibly diminishes when we bear in mind the fact that paralyses of this type may last more or less continuously for weeks, months, or even years. It is difficult to understand vaso-motor spasms in brain regions lasting for such prolonged periods, because when we see vaso-motor spasms occurring in external regions of the body their duration is usually to be measured by minutes, or at most by hours, rather than by weeks, months, or years. It is true, however, that there does seem to be a durable, partial, vaso-motor spasm oftentimes in the limbs of one or both sides of the body in these patients (where hemianæsthesia, single or double, exist), if we are to judge from the difficulty in extracting blood by even deep needle pricks on the hemianæsthetic side of the body. The absolutely sudden onset, or the sudden cessation, of functional paralysis in other cases, certainly points very strongly in favour of vaso-motor spasm as a cause of the affection. And, perhaps, the vaso-motor spasm need not be extreme. It may be that for brain or spinal cord regions to manifest their proper functional activity a full blood-supply is required; so that if this is diminished by one-half, or even one-third, a very distinct failure of function may be the result. It may happen that the amount of blood supplied to the affected ischæmic brain or spinal cord region is just sufficient, in many cases, to enable its nutritive condition to be maintained; while in other cases the amount of blood supplied may be even too small for this, so that actual degradation of structure results—a degradation sufficient to prevent proper functional activity, yet not perhaps sufficient to result in changes easily detectable by the aid of the microscope, even if the opportunity were forthcoming. In cases of the former type, the abrupt recoveries that occur in some cases where we have to do with functional paralysis are explicable enough; and, on the other hand, where we are concerned with cases of the latter type we may expect that recovery will be much more slow and protracted, when the disease has been of long duration, since, even after the primary cause (the vascular spasm) has been made to disappear, it still remains, before functional activity can be properly manifested, to restore to the previously starved tissues the nutritive standard needful for healthy activity.

If we do not appeal to a primary vaso-motor spasm as the cause of the functional paralysis, our difficulties seem to increase rather than to diminish. Yet such an explanation seems decidedly less probable where, as not unfrequently occurs, the paralysis in question is of gradual onset. On the other hand, a primary limited failure of nutrition, not of ischæmic origin, but entailing, merely as a consequence, a diminished flow of blood, is still more difficult to understand. Such local failures of nutrition may, of course, occur independently of a primary vascular change, but of this, as a fact, we know nothing. Nor is it easy to imagine what the determining cause of any such localised nutritive failure can be. Still, it must be recognised that the activity of nervous elements differs in different individuals, and, moreover, that it seems to differ also in different parts of the same brain as a matter of original endowment. In other words, we know that different individuals vary notably in the excellence of their nervous endowments (dependent as this may be, in part, upon varied excellence in degree of organisation; and, in part, upon a different intrinsic excellence in the molecular structure and activities of the nerve elements themselves); and similarly, that the different powers or faculties of the same individual may be of very various degrees of excellence because of differences of organisation or of intrinsic activity of nerve elements in related areas of the brain substance. The celebrated musician has one set or system of nerve elements of surpassing activity and sensitiveness, just as the celebrated painter or the celebrated mathematician may have other sets or systems of nerve elements of surpassing sensitiveness. Such connate and inherent differences in intrinsic activity of nerve elements in different parts of the brain may exist quite independently of local variations in vascular supply as a cause thereof. It is not the same kind of thing, but it is perhaps something like it, if we assume that the original standard of nutrition may not be maintained, that it may become degraded in fact at times in some individuals, for no assignable reason, and quite independently of any primary alteration in the blood-supply to the part. I say "primary," because a lowered nutritive activity would infallibly entail as a sequence a lowered blood-supply. The old maxim, *ubi stimulus ibi fluxus*, seems to be one which is pre-eminently true in regard to nerve tissues, so that an exaltation or diminution of functional activity in any part of the brain or spinal cord almost

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After these preliminary remarks we may now turn to a consideration of the characters distinguishing some of the different types of "functional paralysis." It will be advantageous first to deal with some of those of a cerebral type; and secondly, to consider some of those forms which may fairly be deemed to be rather of spinal origin.

CASES OF FUNCTIONAL PARALYSIS OF CEREBRAL TYPE.

(*a*) *Cases due to defective functional activity in some portion of the Rolandic convolutions, comprising the kinæsthetic area (that is, the so-called "motor area").*—The first case of this type to which I have to refer is one of a very rare kind (so far as present records go), and exceedingly interesting because of the light that it helps to throw upon the real functions of the convolutions in the so-called "motor area," as well as upon the actual physiology and mode of production of voluntary movements. It is well known that, following the teachings and experiments of Hughlings Jackson, Ferrier, and others, there was for some time a very general consensus of opinion that these convolutions contained "true motor centres" concerned with the execution of voluntary movements. This interpretation, however, I and others have from the first opposed. I have denied that any satisfactory evidence exists to prove the presence of real motor centres in any part of the cerebral cortex. I have denied, moreover, that there is any physiological or psychological reason for postulating the existence of any such centres.[2] I have asserted, on the other hand, that a special class of sensory centres—namely, those registering kinæsthetic (sense-of-movement) impressions—are really needed in the cerebral cortex to do the work, or an essential part of it, that is supposed to be performed by the hypothetical and altogether imaginary cortical "motor centres" which have been so much spoken of for the last twenty years.[3] I have further endeavoured to show that these kinæsthetic centres for different parts of the body are located, just as the corresponding motor centres were supposed to be, in different parts of the Rolandic and mesial convolutions. In short, if all the experimental and clinico-pathological facts be accepted on both sides, the question of interpretation still remains. Do the convolutions in question contain simple motor centres, or are they rather sensory centres of a kinæsthetic order? Ferrier, and those who think with him, say they are motor and motor only; I, on the contrary, maintain that they are sensory, that they are, in fact, all-important centres in which impressions derived from, and occasioned by, movements are registered. There is fortunately one means by which this doubt may be resolved. According to Ferrier, the loss of functional activity in these convolutions results in a loss of motility only; that is, without coincident impairment of any mode of sensibility. I, on the other hand, maintain that the loss of function in these convolutions entails a loss of muscular sense in corresponding parts of the body, and that the motor paralysis that exists is produced by, and directly consequent upon, this loss, for reasons which I have elsewhere defined. Victor Horsley, in an able article, has recently proclaimed himself a convert to the truth of my interpretation, as well as to the reasons upon which it is based. In *The Nineteenth Century*, June, 1891, p. 859, he says: "With the object of concentrating attention on the vital importance of grasping the causal nexus between these sense-impressions of movement and the actual subsequent motion, Bastian coined the term 'kinæsthesis,' meaning thereby the sense of movement—i.e., the sum of all the sensory impressions just referred to; and, further, he, in addition, postulated the view that such kinæsthesis, or sense of movement, strain, effort, &c., must naturally find its seat or localisation in the so-called motor or Rolandic region of the brain, since undoubtedly voluntary impulses issue therefrom. It is this postulate which embodies the great importance of kinæsthesis, or the so-called muscular sense, to psychology and neurology, and it is this relationship which it is hoped may be considered to be demonstrated by the facts now to be related." He has been influenced largely by the observation of cases of cortical disease, and by the fact that in the various operations which he has performed for the removal of portions of the cortex in the human subject from the Rolandic area he has found loss of muscular sense in the corresponding part; and especially when the arm centres have been removed, because it is in the upper extremity that the presence or absence of this endowment can best be tested. The case about to be related seems to show the same kind of defect resulting, not as a sequence of structural disease, but from a functional degradation in the so-called arm centres. Charcot has recorded several allied cases of a very interesting kind, though in them other modes of sensibility were just as gravely affected as the muscular sense. In my case these other modes of sensibility were scarcely at all affected at one time, and subsequently only to a minor extent. The reason of this important difference will be referred to further on.

Rhoda R——, aged twenty-three, a nurse in one of the large London hospitals, was admitted into the National Hospital for the Paralysed and Epileptic under my care on April 10th, 1889, with the following history. Eleven weeks ago she fell heavily on her right shoulder whilst going upstairs, and when seen on the following day there were bruising and ecchymosis with extreme tenderness at one spot over the outer end of the clavicle; movement was limited and caused great pain; there was slight crepitus, but no displacement. "Fractured clavicle" was accordingly diagnosed and treated, and no attention was paid to motility or sensibility at the time. When "taken down" a month after, she could move the right hand and forearm freely, but not the upper arm or shoulder. This was thought to be due to slight stiffness resulting from fixation. She was encouraged to move it gradually, by a mark on the wall, and some passive movements were employed daily, but no progress was made. At the end of a week the hand and forearm could not be moved, the hand hanging powerless at the side. Some paralysis was now suspected, and it was found that when the arm was held up at a right angle it would fall very slowly and gradually. Some rigidity was noticed on suddenly raising or lowering it. Sensation was absent all over the limb, pins could be stuck into it without causing any pain, and no bleeding followed their removal; only pressure was appreciated. When told to move her arm no movement resulted, but the opposite side of the body was forcibly flexed laterally, as though an effort were being made to support some heavy weight from the shoulder. An electrical examination showed no diminution in excitability in the muscles, which responded readily both to the faradaic and to the galvanic currents, and equally so on the two sides. But faradaism seemed to cause great pain even with an extremely feeble current. She was subsequently treated with faradaism, the cold douche, and massage, but without any improvement, though she stated every morning she was "much better." (The foregoing notes were kindly sent to me by Mr. Ernest E. Lewis, house-physician to Dr. Coupland, after the latter was good enough to transfer this patient to my care.) After admission the patient herself added the following particulars. She confirmed the account that she was at first, after the removal of the bandages, able to move all parts of the arm feebly, except the shoulder. The arm then began to feel very heavy, and as if very large; it also tingled very much. This condition persisted a few days, and then she found that the arm was quite powerless, and that she could not feel when it was touched. The day before she lost power and feeling in the arm the subjective sensations were very much worse, and the arm ached a great deal. On awakening the next morning she found it in a helpless condition. She remained in much the same state till ten days ago, "when feeling returned, and since then a little power of movement." The patient had previously enjoyed very good health; she had suffered from no nervous diseases, nor was there a neurotic family history, except that a younger sister became paralysed on the right side after fits when teething, though she is now well, and has had no recurrence of the fits. Present condition: The patient is a well-nourished, healthy looking young woman, complaining of loss of power in the right arm. The arm is wasted to a very trifling extent as compared with the other, and the muscles are slightly less firm. Patient can shrug the shoulder, but otherwise cannot perform any of the movements of the arm or hand. When she tries to move the fingers or thumb of the right hand there is just the slightest visible result (a slight tremor in the fingers she is trying to move). No rigidity, and passive movements at all the joints are free and painless. The reflexes at the triceps and the wrist are a little more free than they are on the left side. Sensibility to touch and

[2] The Brain as an Organ of Mind, 1880, pp. 581-588.
[3] "Brain," April, 1887, pp. 75 *et seq.*

pain not affected; she feels just as well as on the left arm.[4] Muscular sense is greatly impaired; thus with eyes closed she cannot say whether the right arm is straight or flexed at the elbow, or whether the fingers are extended or flexed. She seems, in fact, to have no idea of the position of this limb, merely says she feels it touching something, but cannot say what. When tested in the same way with the left limb, she knows accurately and at once its exact position, and also that of the fingers. Electrical reactions: All the muscles of the shoulder, arm, and hand respond well to a weak faradaic current, and also to the continuous current, K.C.C. being also greater than A.C.C. Facial movements are equal on the two sides, and the tongue is protruded straight. The lower extremities are unaffected. Reflexes: Organic normal; plantars very active; knee-jerks active; ankle clonus not obtained; epigastric and lower abdominal reflexes active. Eyes: Pupils equal, and react to light and accommodation; no ocular paralysis; no nystagmus; optic discs normal. Heart sounds normal; no murmur; action regular. Lungs: Nothing abnormal. Abdomen: Nothing abnormal. Urine acid, sp. gr. 1025; no albumen; no sugar. Menstruation regular. She was ordered one ounce of quinine mixture three times a day, faradaism to the right arm daily, also the wire-brush and massage.—April 18th: (Examination made and notes dictated by Dr. Bastian.) After some simple passive movements with the left arm, the patient being blindfolded, she knows exactly the position in which the limb is left. But when similar passive movements are made with the right arm, and the limb is left strongly flexed at the elbow and wrist, she cannot say in what position the limb remains. She adds, "I don't see how I can say," and in reply to the question whether the limb is bent or straight, she says, "Is it straight?" When two or three passive movements were made in succession with the left arm she could afterwards say what movements had been executed; but when a similar trial was made with the right arm she was quite unable to specify the movements that had been executed, merely saying that she felt "a movement at the shoulder," and could feel that the limb was touched. Again, when the right hand is manipulated and the fingers are left in a flexed condition, she is quite unable to say whether they are bent or straight. When the left hand is similarly manipulated, she tells without hesitation which fingers are bent or extended. Her power of ideally recalling movements of the right arm seems to be equally defective. When she is asked if she can imagine touching the tip of her nose, the top of her head, or her ear with the left forefinger she answers at once, "Yes." When asked, on the other hand, whether she can imagine similar movements made with the right arm and hand, she hesitates, makes no reply, and when pressed for some answer says, "No, I can't." Again, when asked whether she can imagine herself playing on the piano with the left hand, she at once says, "Yes;" but in regard to the right hand she gives the same negative reply as before. Tactile sensibility over the right arm and hand seems to be not quite so perfect as it is on the left side, but it is scarcely appreciably impaired, and slight touches can be perceived. Sensibility to painful impressions is very slightly altered—e.g., she calls a slight prick with a pin on the right hand or arm a "pinch"; while on the left side she recognises it at once as a prick. Sensibility to differences of temperature is also diminished over the right arm and hand; thus, a moderately hot body feels like a simple touch, though a cold body is more distinctly appreciated as such.—22nd: Sensibility to slight touches is rather more blunted, as is also the sensibility to pain in the right upper limb. Thus, the prick of a pin is now only perceived as pressure, and not even as a pinch. As a rule also she localises wrongly; thus, over the back of the hand and the lower one-third of the forearm she refers too high, while above this sometimes too high, but as a rule too low. She takes a long time to make up her mind as to whether a hot or cold test tube is touching her, but answers correctly in the end. No improvement as regards the sense of position of limb. More signs of returning motor power, though no definite movements as yet.—23rd (note by Dr. Bastian): Being blindfolded some passive movements were executed with both arms, leaving the right limb extended by her side. When asked to touch with the left forefinger her right elbow she moved it towards the shoulder; and when asked in the same way to touch her right thumb she moved her left forefinger towards her elbow, and then downwards along the limb to the thumb. Ordered a tepid needle bath three times a week, and a stronger faradaic current to the arm.—May 2nd: More motor power; she can raise the arm better, and can flex it, but cannot extend it at the elbow. No movement at wrist or of fingers yet. Muscular sense and sense of position continue much as before. She has no idea where the arm is in bed after she has been blindfolded and a few passive movements have been carried out to confuse her. She cannot say if the fingers are flexed or extended. When the elbow is flexed she has no idea of its position; when extended, she says, "I think it is straight." Tactile sensibility and sensibility to pain much more blunted. She cannot feel coarse touches and hard pricks on back of hand or fingers; can, however, on thumb, but she refers it to wrist. More blunting in lower third of forearm than above. When touched at middle of forearm she refers it to elbow; when touched at wrist she refers it to middle of forearm. Always goes too much to left before she comes on arm. Cannot appreciate any differences of temperature on hand, and is very uncertain over lower third of forearm; above this level her answers are correct. N.B.—Whenever asked how she is she always says she is "better." When asked whether she can perform certain movements with the right arm she always replies, "Oh, yes, I think so," and makes an attempt to carry out the movement. She has never once said that she is not so well, or that she is unable to do what one asks her to do. When she is asked to raise the arm she makes a great effort, as if the limb were very heavy, and as the arm is being slightly raised she inclines her body backwards and to the left side.—17th: She left the hospital contrary to advice; having after the receipt of a letter from her mother a few days previously become possessed by a very strong desire to return to her home in Devonshire. No very appreciable alteration in her condition had taken place from that which is recorded in the above notes.—21st: In reply to a letter of inquiry from me the patient wrote as follows: "I am glad to be able to tell you that I have regained the power over my arm. Two of my fingers are close together, but I think it will come right in time; it does not prevent me from doing any work. I have had it rubbed morning and evening, also cold sea-water baths daily, so do not think it necessary to come to the hospital just now."

This case seems to be a good example of what Charcot terms a "traumatic brachial monoplegia." It developed not abruptly, but gradually some time after a blow upon the shoulder, and was characterised during the eleven weeks that the patient was under observation by a flaccid paralysis of the whole of the arm, by the absence of muscular wasting, by the presence of normal electrical reactions, by only slight exaggeration of the deep reflexes, by loss of the muscular sense, by mere impairment of other modes of sensibility,[5] as well as by an error in the localisation of tactile impressions of a definite kind. But these are exactly the kinds of defect which, as Victor Horsley has recently pointed out, are to be met with as a result of disease in the kinæsthetic or so-called motor area of the cortex. Thus, speaking of the effects of a paralysing lesion situated in a portion of the upper limb area of the cortex—viz., the focus concerned with the movements of the thumb,—he enumerates them as follows: "(1) Insensibility to slight tactile impressions on the thumb, (2) inability to localise correctly moderate tactile impressions on the thumb, (3) subjective sensation of numbness and cold in the thumb, (4) ignorance of the position of the thumb in space unless the eyes are directed towards it, (5) paralysis of voluntary movement of the thumb." My contention is that in this case, as in others in which there is actual organic disease of the Rolandic area of the cortex, the paralysis met with was directly due to the functional inertness of the kinæsthetic centres there situated, and to the fact therefore that all important neurological processes—viz., the revival of previous kinæsthetic impressions from the part of the limb affected—were no longer capable of being produced. Without such a revival (since the molecular movement liberated thereby is the means by which the executive

[4] These notes were made by Dr. J. Riesen Russell, who was at the time one of the resident medical officers.

[5] It will be seen from the notes that at first there was a much more marked loss of sensibility than existed when the patient first came under my observation; and during the time of her stay in the hospital there were several fluctuations in the degree of anæsthesia existing. This I believe to have been due to the coexistence of a slight functional defect in the hinder portion of the internal capsule.

bulbar and spinal motor centres are set in action) a voluntary movement can no more take place than can a gun be fired without the pulling of its trigger.

This was the first case of the kind I had had the opportunity of examining after fully realising the consequences of my own views as to the real nature of a case of so-called "hysterical paralysis." It was with much interest therefore that, in the presence of our then senior resident medical officer, Dr. Taylor, I tested this patient as to her ability to recall in idea movements of her paralysed arm. This ability was found to be absent, as the note then made (April 18th) shows. But such paralysis and inability to recall movements in idea which is found in association with loss of muscular sense in cases of structural or functional disease of the kinæsthetic centres, is not by any means necessarily present in all cases where there is loss of muscular sense. All important differences are met with according as the loss of muscular sense is dependent upon diseases of a functional or structural type involving the afferent tracts for kinæsthetic impressions; or as it is dependent upon disease involving the cortical centres for such impressions. It is in the latter case only that we have a right to expect as consequences a corresponding motor paralysis, together with an inability to recall corresponding movements in idea. A forgetfulness or failure to recognise this important distinction on the part of several writers has given rise to much confusion. It is the mere afferent channels for these and other sensory impressions that are affected in a great majority of the cases of profound hemianæsthesia, and in them there need be neither the existence of paralysis nor of any inability to recall movements ideally. Still, as a matter of fact, these two groups of symptoms often go together—that is, we may have patients suffering from profound hyperanæsthesia and at the same time from paralysis of the affected limbs. The occurrence of such a combination may, as we shall afterwards see, be accounted for in different ways; but one, and that the most probable, mode of explanation is to suppose that both afferent channels and some portion of their cortical centres are simultaneously affected by the same kind of nutritive depression.

THE INDIAN PILGRIM TRAFFIC.

BY SURG.-GEN. SIR WM. MOORE, K.C.I.E., Q.H.P.

IN THE LANCET of Sept. 19th last, in the annotation headed "Cholera," the following sentence occurs:—"What is wanted is an adequate provision for, and a systematic application of, sanitary arrangements to the pilgrims" from India to Mecca. The truth of this remark will be apparent when it is known that more than one-third of the pilgrims who leave Bombay on the "Haj" never come back. The following table, recently appearing in the *Times of India*, shows the number of pilgrims leaving and returning to Bombay during six recent years:—

Years.	Number of Pilgrims.		
	Left.	Returned.	Missing.
1885	8,436	5,405	3,391
1886	8,606	6,150	2,456
1887	9,466	5,726	3,740
1888	13,970	6,505	7,465
1889	12,495	10,101	2,394
1890	11,665	8,662	3,003
Total	64,638	42,189	22,449

It is of course quite possible that some few may return to India by other routes, and not by the pilgrim ships, but the number so returning must be very small, as alternative routes entail difficult journeys overland through Arabia, Persia, Affghanistan, &c. Bombay is the port for the pilgrim traffic for the whole of India and for the most considerable portion of that of Central Asia, and much has been done by the Indian authorities towards regulating the pilgrim traffic. A few years back a revised "Pilgrim and Native Passengers Ship Act" was passed. By this Act pilgrims were required to take passports. Ships carrying pilgrims were obliged not only to have bills of health at Bombay, but also to submit to inspection at Aden; also to have improved cooking, washing, and latrine arrangements. Each vessel carries a medical officer, who, although not a Government medical officer, is approved by the Surgeon-General of the Indian Medical Department. Vessels from the Persian Gulf touching at Indian ports are also required to submit to inspection. Notwithstanding all this, however, the mortality among the pilgrims is very large, for those not returning in the pilgrim ships to Bombay are, with few exceptions, dead. Dr. Mac Cartie, the port surgeon of Bombay, has recently recommended an increase of the accommodation in pilgrim ships from 9 to 12 superficial feet, and from 54 to 72 cubic feet per adult during the fair season, and in the monsoon to 15 and 90 feet. Doubtless such accommodation should be provided at sea, even for natives of India. But it is questionable if such increase would very much diminish the mortality, for the greatest number of deaths occurring on board ship always takes place during the return voyage, when the ships carry fewer passengers than on the outward voyage. Also, the mortality is always greatest during a monsoon return voyage. In fair weather a large number of the pilgrims locate themselves on deck, and remain there day and night. But when they are compelled to go below by falling rain, and encroaching seas, the death-rate invariably rises, and this especially on the return passage. Various other factors also conduce to a large mortality among the pilgrims. A large proportion of those proceeding to Mecca are old or infirm. They proceed when they can, and do not limit the "Haj" to the fair season. Many are impecunious, and therefore fare badly. Neither have they clothing sufficient to protect them from the atmospheric changes they must encounter. No doubt the sanitary arrangements under which they sail are susceptible of further improvement. But the principal reasons of the mortality are the life they lead at Mecca—often wanting suitable food, water, clothing, and shelter—and the other insanitary conditions under which they are placed. And this notwithstanding certain improvements during recent years at Mecca and Medina. The matter is one of great interest, and demands earnest attention. But whatever the Indian authorities may accomplish, there will always be much sickness and mortality so long as sanitary conditions are so indifferent at the ports and places to which pilgrims resort.

That large assemblies of pilgrims may form and disperse without the occurrence of any epidemic, if under suitable sanitary supervision, has been abundantly demonstrated at Indian fairs and festivals. And this even when cholera has prevailed in the neighbouring districts. To various examples which might be named may be added the immunity of the pilgrims from disease at the late great fair at Hurdwar, or the "Khumb Mela" of 1891. Formerly, it might truthfully be said of an Indian fair, or festival, cholera will be there; now it can be said cholera will most probably not occur. I will not detail the various sanitary arrangements now enforced at Indian shrines which have conduced to this result. But I feel sure that if similar arrangements were adopted at places of pilgrimage out of India, the sickness and mortality of the pilgrims would be very greatly reduced. For, as before stated, it is during the return voyage that the greatest mortality happens on board ship. This is not so much caused by sea life, as by the condition into which the pilgrims fall during their stay at the shrine, before they essay the return journey.

CASE OF EXCISION OF A LARGE SPINA BIFIDA.

BY H. H. CLUTTON, F.R.C.S. ENG. &c.

THIS case is of interest from the age of the patient at the time the operation was performed, from the large size of the tumour, and the freedom from all symptoms which could cause anxiety. Evidence from all sides is accumulating to show that the spinal membranes may be opened and continue to discharge large quantities of cerebro-spinal fluid for some days without producing any serious sym-

ptoms. This case is published as additional evidence on this point, and as an encouragement for more radical treatment of selected cases of spina bifida.

The patient, a young unmarried lady aged twenty-one, was sent to me in 1887 by Dr. Oxley for my opinion as to the advisability of operating. She had lately become engaged, and thought the tumour might be found detrimental to her in her married life. I found on examination a large globular, soft, and fluctuating cyst, twenty inches in circumference, accurately situated in the median line, and attached to bone at the junction of the last lumbar vertebra with the sacrum. It had existed since birth, and had steadily increased till five years ago, but since then it had been quite stationary. There was no impulse on coughing, and it could not be diminished in size by steady gentle pressure. She stated, however, that any accidental pressure, such as turning over in bed during sleep, or incautiously lying on her back whilst on a sofa, would cause faintness and be followed by headache. She therefore habitually slept upon her side, and carefully avoided any direct pressure upon the tumour. The skin was perfectly continuous over the cyst, and not adherent at any part. There was no depression or scar-like tissue in its centre, such as is so generally seen where the spinal nerves are present and attached to the posterior wall of the sac. It was perfectly translucent. There had never been at any time any paralytic symptoms or pain down the legs. In fact, there was a complete absence of any indication that the spinal nerves were in the sac. Under these circumstances, coupled with the fact that the cyst had remained stationary for the last five years, she was advised not to submit to any operation, but to protect the tumour from any accidental injury, and to marry.

In September, 1888, she was again seen, and found to be still unmarried. There was no alteration of any kind, and the same opinion was given. In August, 1890, she was still unmarried, and evidently worrying over what she considers a strong argument against married life. She also stated she was sure that it had increased in size during the last twelve months. On examination the tumour was found to be 23 in. in circumference, as against 20 in. at the first visit in 1887. It was much harder, and more resistant to pressure, compared with its previous flaccid condition, and there was decided thickening of the cutaneous coverings. An operation was therefore recommended. On Aug. 18th, 1890, the operation was performed at the Victoria Home with the assistance of Dr. Sheppard (who gave ether), Dr. Young, and Mr. Staveley. An incision was first made at the side, and a lateral flap of skin formed; the cyst was then opened and explored from this aspect, so as to avoid any possible injury of nerves if they were present and attached to the posterior wall in the median line. An aperture was at once felt of about the size of an ordinary pencil case, leading into the spinal canal, with a few insignificant nerve fibres about the orifice, but none stretching across the entire cavity. The deficiency in the bone could be felt to be about two inches in its vertical diameter and about half an inch across. Nearly the whole of the cyst was therefore removed, a small part only being retained to form a plug from the opening into the spinal canal. This portion was folded upon itself, sutured with catgut, and firmly pressed into the opening. Redundant skin was removed and the remainder united at the side by wire sutures. A drainage-tube was introduced as a precaution, on account of the large area exposed. The dressing was changed on the 21st, three days after operation, to remove the tube, and on the 23rd all sutures were removed. The temperature for the first week varied from 98·2° to 100°, and after this never rose above 98·6°. There was little or no constitutional disturbance, the only complaint being want of sleep. After the first week the discharge began to increase in quantity, being at first blood-stained, as if from old blood-clot in the sac. The dressings had therefore to be changed every day. On the 29th there was a very large flow of clear fluid soaking through a large quantity of dressing into the bed. This continued for a week, and required a change of dressing twice a day. This was undoubtedly cerebro-spinal fluid, and ceased on Sept. 5th, almost as suddenly as it commenced. On the 12th there was no fluid at all, but a small pocket of pus. On the 17th there was scarcely any discharge, and by the end of the month the wound was soundly healed. She left for her home in the country on Oct. 3rd. During the whole time there had been no symptom of spinal irritation of any kind. She married in March, 1891, and was seen on March 25th during her wedding tour. The aperture in the bone could be felt at the base of the sacrum, but was perfectly free from pain or tenderness, and the cicatrix was freely movable. She had grown comparatively stout, and stated that she had never had better health than she had had since the operation.

Portland-place, W.

SUPPURATING HYDATID OF THE LIVER, SIMULATING GALL-STONES; RUPTURE THROUGH THE LUNG.[1]

BY C. H. CATTLE, M.D.LOND., M.R.C.P.

MR. ROBINSON'S article in THE LANCET of May 2nd shows what may be done for extensive hydatid disease by bold interference. The following case illustrates some difficulties of diagnosis, and the fatal tendency of the disease when surgical interference is too long delayed. The patient was a married woman, aged fifty-six, who had previously enjoyed fair health. On Nov. 6th, 1889, she was seized with vomiting, which subsided after about twenty-four hours. An attack of jaundice followed, which lasted a week. After this she got downstairs, but remained weak and low-spirited. Her temperature was normal at the time of my visits, but was not taken in the evening. She complained of burning in the palms of the hands at night. I have elsewhere referred to the fact that this patient suffered at this stage of her illness from thrombosis of the trunk-veins of the right leg; I only mention it now to remark that the thrombosis was of temporary character, and did not appear to those who saw the case to depend upon pyæmic infection. On Dec. 9th the left lobe of the liver was found to extend almost midway between the ensiform cartilage and the umbilicus; there was no upward increase of liver dulness, but from this time onward gradually increasing extension of liver dulness, both upward and downward, was perceptible. Early in January, 1890, a succession of attacks of severe pain in the hepatic region commenced, attended by vomiting, rigors, perspiration, and temperature of 101°. Jaundice followed the paroxysmal attacks, but did not become permanent. On Feb. 10th the liver dulness was found to extend from just below the third rib in the nipple line to near the umbilicus, and to the left a considerable distance beyond the middle line; behind from the middle of the scapula to the base on the right side. The abdominal muscles were firmly contracted over the enlargement, but the patient bore manipulation without much complaint. The morning temperature was from 99° to 100°; there were occasional rigors, followed by sweating. She now complained of cough for the first time, and was found to be expectorating small masses of greenish purulent sputa. The breath sounds were weak over the dull areas, and at the extreme base of the right lung behind slight gurgling was heard. During the next few days she continued to expectorate pus, between half an ounce and an ounce daily, and this became slightly offensive. As she was obviously losing ground I asked Dr. Marshall to see her with me, with a view to surgical interference. We saw the patient together on Feb. 24th. The physical signs were as above-mentioned, with the addition that now loud bubbling and splashing râles with cavernous breathing were heard below the right nipple over an extent of about three inches. It was decided to attempt to open the abscess cavity from the chest wall. After injection of cocaine the needle of an exploring syringe was inserted into the sixth space in the anterior axillary line. A little serum stained with blood was obtained. Several fruitless punctures were made, but at last pus was found by means of a long needle attached to an aspirator, inserted in the fifth space an inch and a half below and three-quarters of an inch outside the nipple. The needle was thrust inwards for two inches and a half before pus came. The patient was now placed under the influence of chloroform, and an incision made over the site of the last puncture. Several ounces of thin offensive pus escaped, mixed with numerous grape-like bodies, varying in size from a quarter to three-quarters of an inch in diameter. These were evidently hydatid cysts, and numerous hooklets were detected on microscopic examination of the fluid. A drainage-tube was left in the wound,

[1] Read before the Midland Branch of the British Medical Association.

and over it was placed a pad of salicylic wool. Unfortunately the patient died two days after the operation. No post-mortem examination was made. In fact, active interference had been delayed too long, and the wisdom which comes after the event suggests some considerations, by means of which, if taken account of in time, both my diagnosis and treatment might have been improved. Up to the time of the operation I held by the diagnosis originally made—namely, gall-stones,—and in this I had been supported by the opinion of Dr. Ransom, who saw the patient at a stage when there was only slight enlargement of the liver—and, indeed, there is nothing in the subsequent history inconsistent with the gall-stones theory. Murchison[2] states that gall-stones may cause ulceration of the gall-bladder or ducts, and, in consequence of this, abscesses of pyæmic nature may form in the liver. He also states that "when the common bile-duct is obstructed, the ducts in the interior of the liver may become dilated into irregular cavities full of pus"; and he further states that an abscess in such a case has been known to burst into the pleura. Before the symptoms in my case pointed to the existence of an abscess, I thought it possible some considerable degree of liver enlargement might be caused by distension of the numerous ramifications of the biliary ducts. I had previously seen a case in which, after biliary colic, the liver was palpable for from two to three inches below the ribs, and in which this enlargement almost entirely subsided after the patient had *expectorated* large quantities of bile, partly pure and partly mixed with frothy mucus. In addition to the comparative rarity of hydatid disease in private practice, the acuteness of onset in this case, and the rapidity of its course are departures from the usual teaching of medical literature—features, therefore, calculated to throw the practitioner off his guard. Murchison says:[3] "The latent character of hydatid enlargement of the liver is one of its chief characteristics." The tumour will probably have reached a considerable size before the patient's attention is drawn to it. And respecting the diagnosis of suppurating hydatid from other forms of abscess he says: "The diagnosis must depend on the fact of a painless tumour having long preceded the symptoms of abscess." The total duration of my patient's illness was a little over three months, and ten weeks before her death the liver enlargement was only just perceptible. The same authority gives rupture into the right lung or pleura as the most likely outlet for the spontaneous discharge of a hydatid cyst, and the occurrence adds greatly to the gravity of the case. A difficulty in diagnosis is sometimes caused by the resemblance which purulent accumulations in the region of the liver may bear to an empyema. In my case the strongly-marked hepatic history excluded this source of confusion, and the exploratory puncture made by Dr. Marshall proved the pleura to contain serum. In THE LANCET of Nov. 22nd, 1890, a case is reported in which the pleural cavity was opened for what was believed to be ordinary empyema, and was found filled with pus and hydatid vesicles, which latter had probably found their way thither from the liver. Mr. Godlee[4] mentions a case where a suppurating hydatid encroached on the lower part of the right pleural cavity, and was opened in the belief that it was an empyema, its real nature being only discovered some time afterwards by the escape of cysts after exploration of the original wound. It is an interesting question why a hydatid tumour sometimes remains quiescent with watery contents for an indefinite period and at others takes on suppuration. It may be thought that in my case suppuration may have been caused by the admission of air containing pyogenic organisms to the cyst; but if that were so I should have expected evidences of bronchitis with much watery expectoration before the appearance of pus, which, however, was not the case. Nevertheless, without the admission of air, the condensed and damaged lung-tissue adjoining the cyst would form a suitable soil for the growth and extension of micro-organisms. And in other cases, where this mode of infection is excluded, organisms may not improbably find their way to the liver from the alimentary canal, or may be brought by the blood-stream.

I need not detail my medical treatment of this case; it was merely directed to the relief of symptoms. A more successful result might have followed bold and timely resort to surgical measures.

Nottingham.

[2] Diseases of the Liver, p. 174.
[3] Op. cit., p. 58.
[4] Brit. Med. Jour., Jan. 25th, 1890.

REMARKS ON THE MORE ACCURATE EXAMINATION OF THE URETHRA AS A BASIS OF MORE SCIENTIFIC TREATMENT.

BY JAMES MACMUNN.

CONCISELY put, some of the points still worthy of study in urethral surgery are:—(1) The normal size of the urethra and the best means to determine it; (2) the value of the aphorism of Otis that its size bears definite relation to the circumference of the penis; (3) the state of tone and tension of the urethra; (4) the shape of the normal urethra; (5) the significance of slight narrowings, and the differentiation of normal from abnormal narrowings; (6) the consideration of muscularity and differentiation of spasm, particularly deep-seated, from stricture; (7) the anatomy and pathology of stricture; (8) its locality; (9) urethral sensibility; (10) the best and simplest way to examine the urethra.

I shall briefly enumerate these.

1. *Urethral calibre* means, according to scientific surgeons, the capability of expansion. This definition is, however, partial only, and hence defective; rather we should say that urethral calibre means the capability of expansion under the influence of a known distending force, for we are dealing with a vital and elastic passage, always contracted. After death, also, if we wish to determine this point, we had better bear the same qualification in mind—viz., that even then the size varies with the degree of distending force we use. Without such a corollary the means adopted in practice for the determination of this question must be inaccurate, since different surgeons vary not only in their ideas of the size and kind of instrument which ought to be used, but in the force they consider justifiable. Now when to this fact we couple the fact that the urethra varies in size and in its power to resist distension at different sites in its course, it will be acknowledged a means whereby such considerations could be met might be acceptable.

2. *The aphorism of Otis.*—Although every urethra, like other mucous passages, must of course have a certain "individuality," yet the means suggested for determining it, although often approximately correct, is often very defective. The thinking mind will soon discard its absolute application on the grounds that the size of the urethra does not vary *pari passu*, as evidenced by instruments with the organ which it permeates, under the influence of many causes.

3. *The tone and tension of the urethra* and its deep sphincters are conditions seldom considered in practice, but which nevertheless are of great importance. They are influenced by inflammatory, neurotic, and other factors.

4. *The shape of the urethra* is generally described as being cylindrical, or funnel-like, from the bulb to the meatus or fossa. I think it will be found, on accurate examination, to taper outwards for about three inches, then to contract slightly, and again to widen out still more gradually and very slightly until the fossa is reached. I think the urethra will be found least distensile at this narrowing, and will present a certain spiral direction, here capable of rotating a body traversing it from within outwards, and generally from left to right to the extent of a full revolution. The best way to determine this is to withdraw a rather full-sized bougie à ventre by means of a thread attached to its stem, when it will rotate. I do not think the longitudinal rugæ account altogether for this rotation; but I do think this "spirality" is the principal cause of twisted stream, even in health. The slight narrowing referred to is not infrequently mistaken for stricture of "large calibre." It must be remembered that the roof of the urethra is even and supported, the floor sacculated and unsupported; hence considerable distension must occur at the expense of the latter, and hence also the desirability of using sounds bellied on their convexity, which will, if made tapering at the same time, have the best possible shape.

5. *The significance of slight narrowings.*—All normal narrowings likely to be mistaken for stricture in the spongy urethra are gradual, but there are swollen states of the mucous membrane and rugæ, localised spasm or dilatations, granular patches, superficial sclerosis, inflammatory deposits, and most rarely growths, which by rendering the canal unequally expansile, or by impinging against the abrupt shoulders of a bulbous instrument, are mistaken likewise for stricture.

6. *The consideration of muscularity and the differentiation of deep spasm from stricture.*—Circular and longitudinal muscular fibres surround the entire canal, and spasm or dilatation (atony) may be localised or generalised in any part, or through the entire canal. That the most common cause of spasm is some degree of fibrous stricture is a fact scarcely necessary to mention; that deep-seated spasm, often chronic in character, giving rise to symptoms of confirmed stricture, impassable to some instruments, and dependent on slight anterior narrowings, may likewise exist, is also accepted as a fact by most surgeons; and that spasm lasting for years, and dependent on mere irritation and congestion, and giving rise to the same symptoms, is equally true, and was recognised by Abernethy, Brodie, De Morgan, and others in the past, must be acknowledged. But the practical point is, Do such conditions of spasm ever of themselves prevent catheterisation? and by doing so suggest stricture which does not exist, and a mode treatment uncalled for? This certainly is my humble opinion, and was the opinion of eminent men like Civiale, Brodie, Folet, Verneuil, Otis, and others, despite the opinion of Sir H. Thompson, who says, "Spasm may prevent the urine from going outwards; I do not know that it ever prevents the instrument going in." Some weeks ago I divided a stricture at the meatus, accompanied for years by a deep contraction, which had persistently resisted instruments. After the little operation (some days after) a bougie 28 mm. passed into the bladder.

7. *The anatomy and pathology of stricture* are not perhaps sufficiently borne in mind in our treatment of this condition. As regards its anatomy, it is as well to remember that, though practically engaging the entire circumference of the urethra at its site, the morbid deposit does not virtually surround it as a rule. It is usually on the floor and on one or both lateral walls. Is it of practical import to determine this? Why should the urethrotome cut so blindly, sometimes severing healthy, sometimes stricture tissues; giving increased capacity, indeed, but substituting a tortuous for what ought to be a straight canal? For the same reason of irregularity of the deposit the opening of the stricture is seldom centrally placed, and moreover the canal in front as well as behind the coarctation is thin and dilated; hence one reason of the difficulty and danger of passing very small instruments. Just one suggestion to meet this difficulty. Cut the curved portion off a No. 10 English silver catheter, pass it down to the face of the stricture, and manœuvre the small bougie through this. When the stages, locality, and forms of stricture (annular, valvular, linear, bridle, nodular, tortuous, longitudinal) are considered, it ought to cause little wonder that diagnoses and results of treatment should vary as they do. As regards pathology, the points to remember, perhaps, are: the degree of organisation; the amount of congestion, spasm, or irritation accompanying; and whether the stricture is in the mucous membrane itself (cicatricial) or beneath it.

8. *Its locality.*—This point is unsettled, and will be, as long as surgeons fail to adhere to the same means of investigation.

9 *Urethral sensibility* may mean a good deal, or may have little or no import. Prostatic sensibility is most exalted, at all ages, to instruments, whereas sensibility to galvanism I have generally found most marked in the *urethra* corresponding to the glans. Galvanism often affords the best means of ferreting out sensitive—i.e., granular—areas. Sensibility is often but a deceptive evidence of prostatitis, and varies with the instrument used.

10. *The best and simplest way to examine the urethra.*—Pass a copper stilet into a bougie à ventre of a rhomboid shape which will quite fill a normal meatus. Such an instrument will neither make nor miss stricture.

The following is a concise description of the two instruments (*vide* engraving) found useful in settling the foregoing points.

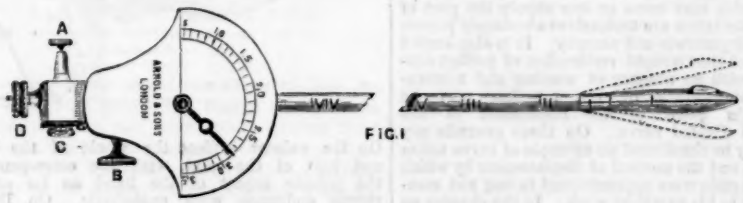
An automatic urethrometer (Figs. 1 and 2).—It was the ingenious Otis who first gave a urethrometer to the profession, and to him belongs the credit. Granting, however, that such an instrument capable of variation in volume is really necessary to possess for the examination of a canal variable itself in its calibre at different sites, and widest at its deepest, it does not follow that this instrument fulfils requirement. First, it has constantly to be screwed and unscrewed, and the operator is left in a maze as to the real size of the urethra examined after all; hence (*a*) a urethrometer ought to be automatic. Second, the ovoid shape is objectionable, and it may be partly on account of this fact that some accustomed to examine the urethra with this instrument deem deep-seated stricture a comparative rarity; hence (*b*) the distal end of such an instrument ought to be shaped differently. Third, bearing in mind that for reasons already stated it is desirable, in investigating the size of the urethra, to register the force we use in distending this vital canal, it is conceivable that, without uniformity in this respect, the question of calibre cannot be accurately determined in the many, or, without the registration of variation, the significance of certain narrowings appreciated in the individual. Lastly, as stated before, as it is desirous to determine on which wall or walls of the urethra the stricture deposit is mostly placed, it is well, if possible, to have an instrument adapted to this requirement. To meet these indications, Messrs. Arnold, with their well-known skill and kindness, constructed for me some years ago the instrument figured. As implied, it is automatic. It affords means by which registration of the pressure exercised on the walls of the urethra can be indicated (C, B, E, Fig. 2) Its distal extremity when expanded is triangular, the basilar angles distend the urethra at the extreme limit of insertion. On one wing there is a little knob whereby each urethral wall may be examined separately. Unequal expansion of the urethra can be shown by having these wings applied to floor and roof (vertical expansion), or to each wall (lateral expansion). By turning the thumb-screw (A, Fig. 1) the instrument is made fixed instead of automatic. The scale is erroneous. Closed, the instrument has a size of 15 mm., fully expanded 45 mm. Pressure scale not shown. The other instrument is badly shown in the engraving. It was made many years ago for me by Messrs. Mayer and Meltzer. The instrument as I now use it consists of a bougie à ventre (rhomboid shape) into which a copper stilet is inserted. Over the proximal end of this stilet two spiral springs are wound, and over them is placed a cannula. On the cannula are marked two scales. One scale indicates the amount of compression of one spring, and hence the force required to pass the instrument through obstructions, the other the resistance experienced on withdrawal.

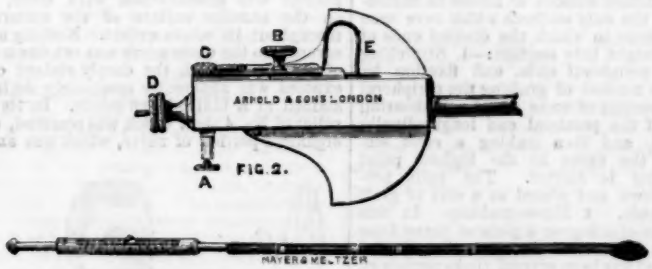
I do not claim perfection for these novelties. They can easily be made perfect, and the urethrometer to delineate the contour of the urethra, by means of urethragrams, if desired, easily enough.

To illustrate the use of these instruments, I may narrate the following cases.

CASE 1.—A. F——, aged thirty-seven years, consulted me in July, 1888, for a gleet of six years' standing; this gleet, although not constant, is easily provoked into subacute urethritis. The urine stream is feeble, small, and twisted; dribbling follows. The patient has been repeatedly examined for stricture, and although on two occasions he was told this condition existed, it was generally considered to be absent. The patient, evidently possessing some knowledge by this of urethral examination, informs me, on inquiry, that when stricture was said to be present bulbous bougies were used. Various kinds of treatment have been used, but ineffectually. I passed the "automatic" urethrometer in this instance into the bladder, and after fixing the pressure spring so that when expanded to the extent of average urethral expansibility—i.e., about 33 mm., the dilating wings of the distal end of the instrument would exercise a pressure of ¾ lb. on the urethral walls (i.e., 6 oz. on each side),—I turned the thumb-screw until the index pointer showed an expansion of 40 mm. I then slowly withdrew the instrument, and it registered urethral calibre as follows: At prostatic portion, 32 mm.; membranous, 25 mm.; bulbous, 36 mm.; beginning of spongy, 26 mm.; middle of same, 27 mm.; anterior half, 28 mm.; meatus, 23 mm. Here, then, in this case was a dilatation in the bulbous portion; an abrupt narrowing bounding it anteriorly of 26 mm., which was twice diagnosed as stricture. Here, also, was that slight but gradual comparative normal narrowing about the middle of the spongy portion, which, I think, will generally be found; and here also was a meatus too small to admit of the examination of the canal behind it by ordinary bougies. Was the deep narrowing stricture? How was this to be determined? I next fixed the pressure spring so that a force of one and a half pound weight (i.e., twelve ounces on either lateral wall) would be exercised on the urethra, and passed the instrument to the bulb and then dilated its expanding end until it reached 36 mm., and until the patient experienced that distension

which indicates stretching, but not undue stretching, of the mucous membrane. (See Fig. 1.) On withdrawing the instrument over the site of the previous narrowing it indicated an expansion of 30 mm. I concluded, therefore, I had to deal not with true stricture, but that forerunner of it under unfavourable conditions which I have elsewhere called "pre-organised" or "semi-organised" stricture—an inflammatory deposit, with, perhaps, some sclerosis or hypertrophic rugæ short of fibroid fibrillation, pathologically speaking, and probably accompanied by that degree of spasm which the weak muscular fibres of the penile urethra are capable of contributing—indeed, that form of stricture alone curable by galvanism. Further, I concluded that owing to the relaxing tendency of chronic inflammation the urethra got dilated behind this narrowing, the atony of the canal accounting for some of the symptoms—i.e., feeble stream and dribbling. To determine whether this atony were urethral or not I passed a catheter with large eyes, when the force of the stream propelled dismissed the idea of vesical atony. I treated the case with the psychrophor, by weak injections through a large two-way injector, and by cold douching, when cure quickly followed. It may be said this was a case of stricture of large calibre, after all. Such a supposition was negatived by the fact of its yielding to increased dilating force without bleeding, and consequently splitting, and by its rather speedy disappearance. It formed, however, one of those cases now so often treated out of England as real stricture by remedies which, indeed, promote absorption, but which are worse than the disease.





To illustrate the use of the other instrument, I may narrate the following.

CASE 2.—I saw J. H——, aged thirty-four, in January, 1887, for difficulty in urination, "occasional involuntary escape of urine," and a feeling of tension in the perineum. He was gouty, addicted to excesses, and attributed his illness to gonorrhœa some five years before. I first examined the urethra with ordinary blunt-pointed English bougies and sounds, but failed to pass them beyond the bulb. Next time I tried a tapering French bougie of 23 mm., which, by using some force, I passed into the bladder. It was distinctly, but not strongly grasped. Had he stricture? In what light would different surgeons appreciate the significance of the grasp? If spasm merely, could it exercise this grasp, and have lasted for years? Indeed, he was told once that he had stricture. A short time afterwards, the same symptoms continuing, I examined the urethra by the instrument which I shall call a "dynamometer"—if such a grand name may be applied to so simple a contrivance—by inserting it into a shortened stem of a modified bougie à ventre, also 23 mm., and thus passing it gently up the canal. By using steady pressure until I nearly reached a force of 1½ lb., the instrument glided into the bladder through the obstruction without encountering any resistance at the internal meatus. On withdrawing it no resistance was experienced until the membranous portion (site of obstruction) was reached. Here the instrument registered a resistance of little over ½ lb. The case was therefore dynamically considered, first, one of spasm of the compressor muscle and perhaps of the external sphincter, and, secondly, one of relaxation of the internal sphincter, the force of the spasm being approximately nearly 1 lb., and the force of the tone of the same muscles being approximately ½ lb. The latter deduction as to tone may be faulty on account of the possible existence of fatigue caused by the pressure used to overcome the spasm, and by the fact of the normally narrow aperture in the triangular ligament supplying a certain factor of resistance of itself. But inasmuch as during the administration of anæsthetics or after death, where the fibrous boundaries of this opening remain unaltered, whilst the tone is affected, the normal calibre of the membranous urethra admits, generally without resistance, a bougie of 26 mm., the latter objection to the deduction arrived at would at all events be met. However, the consideration of spasm, not tone, was the subject in mind. I concluded, therefore, that this case was not one of stricture, for, if it were, the resistance on withdrawal of the instrument would have more closely corresponded to that felt on introduction. Moreover, on a second trial at the same sitting, a force of little over half a pound sufficed to overcome the muscles, now freed *pro tem.* from spasm. In the same manner the difference of resistance experienced on introduction and withdrawal of the instrument will indicate the amount of spasm complicating stricture in the spongy urethra, and the difference of force used collectively at different times will demonstrate the progress made in the treatment of stricture itself more accurately by far than the case in which varying sized bougies can do. The absence of tone at the internal sphincter, of course, accounted for the involuntary micturition. The blunt-pointed instruments failed to pass because they failed to hit off and enter the opening in the contracted urethra. The case was chronic prostatitis. Whoever thinks that force measured by half-pounds or more is not justifiable in investigating the urethra under peculiar circumstances has little idea of the force ordinarily used where it is not measured, and more especially so in those not uncommon instances where an instrument is made to "fly up" the urethra somewhat after the fashion of the Zulu using his assagai. And lastly, whoever deems such refinements in urethral instruments unnecessary contemplates but lightly the obscure though important phases which occasionally present themselves in urethral surgery, the cure of which, on account of inefficient diagnosis, so often proves uncertain or hazardous.

Crouch-end, N.

GUNSHOT WOUND OF ARM; RESECTION OF ULNAR NERVE; SUTURE AFTER DISPLACEMENT; RECOVERY.

By WILLIAM GARDNER, M.D., C.M. GLAS.,
LECTURER ON SURGERY, ADELAIDE UNIVERSITY, S. AUSTRALIA.

OPERATIONS involving resection of a nerve and junction of the resected ends are still of sufficient rarity to possess many points of interest to surgeons. The case which I intend to bring forward in this paper is of importance as another example tending to prove that union by first intention can occur in a divided nerve, the ends of which have been closely approximated by the surgeon. Létiévant, Arloing, and Tripier (according to Mr. Bowlby) have objected to recurrence of sensation in parts supplied by the divided nerve as offering proof of its restoration, for they argue that the other nervous trunks take the place in part of that which is injured, and convey the sensations in question. Mr. Bowlby, however, says that this supplementary sensibility is by no means so perfect as the sensations conducted by the normal nerve, at any rate for a considerable time after the section, if ever; and moreover, though the surrounding muscles may more or less supply the part of those paralysed, the latter are themselves absolutely powerless, and rapidly degenerate and atrophy. It is also stated by the same author that a rapid restoration of perfect sensation, together with an absence of wasting and a retention of the contractility of the muscles, may be taken as certain proof of the restoration of the continuity of the divided nerve. On these grounds my case may probably be considered an example of nerve union by first intention, and the method of displacement by which the divided nerve ends were approximated is one not mentioned by Bowlby in his excellent work. In the chapter on the treatment of complicated wounds of nerves he enumerates the following as the only methods which have been previously adopted in cases in which the divided ends of nerves could not be brought into contact:—1. Stretching of the proximal and peripheral ends, and fixation by sutures. 2. Létiévant's method of grafting the peripheral end on to a freshened surface of some sound neighbouring trunk. 3. Splitting of the proximal end longitudinally to a sufficient extent, and then making a cross section of one half of the nerve at the highest point to which the splitting is carried. The split portion is then turned down and placed as a sort of graft between the divided ends. 4. Nerve-grafting. In this method the sciatic nerve of a dog or a piece of nerve from some amputation case is inserted between the divided ends. This last method has been several times performed with more or less success, and to Mr. Bowlby I am again indebted for notes of the recorded cases. Tillemans used portions of a rabbit's nerve, and Kaufmann grafted with a portion of the sciatic nerve of a dog. In the latter case the result was doubtful at the end of two months. Mr. Mayo Robson's classical case is well known to all British surgeons. He used part of the posterior tibial nerve from a recently amputated leg, and sensation returned in thirty-six hours. The patient was shown at the Clinical Society on Jan. 25th, 1889. 5. Bergmann once overcame the separation of the divided ends by resecting a portion of the humerus, and so shortening the arm and enabling the nerve ends to be approximated. This case was unsuccessful. A sixth method which occurred to me during the course of an operation consists in freeing the nerve both upwards and downwards for some considerable distance, and then altering the course so as to shorten it, and do away altogether with the gap between the divided ends. In my case the ulnar nerve was thus removed from its usual site behind the internal condyle, and made to descend over the front of the elbow, the skin over which had been reflected to enable the nerve to be successfully stowed away. The plan answered admirably, and the restoration of sensation and function in the affected parts was as nearly as possible perfect. The accompanying engravings, from photographs taken in March, 1891, show the arm and fingers both flexed and extended; and when I started from Australia for England in April the patient had decided to return to his work as a miner.

Appended are short notes of the case, for which I am indebted to my friend, Mr. Anstey Giles, M.B. Edin.

"J. R—— first consulted Dr. Gardner on Dec. 8th, 1890, and stated that he had received a gunshot wound of the forearm on Aug. 19th, 1890, and had been treated in the Broken Hill Hospital, New South Wales, for six weeks, when he was discharged. Examination showed a wound on the inner side of the flexor surface of the forearm nearly cicatrised, and on the inner aspect of the arm another cicatrised irregular wound deeply stained with powder. There was absolute loss of sensation on the extensor surface of the hand over an area including the whole of the little finger and the half of the ring finger, and an equivalent surface on the ulnar side of the dorsum up to the wrist.

On the palmar surface the whole of the little finger and half of the next, with the corresponding part of the palmar aspect of the hand as far as the hypothenar eminence were anæsthetic. On Dec. 9th the patient was anæsthetised with ether, and the wound on the anterior surface of the forearm was reopened throughout its whole extent. Nothing abnormal was discovered, so the ulnar nerve was cut down upon at the back of the arm through the deeply stained cicatrix, and when exposed was apparently completely destroyed and deeply stained of a bluish-green colour. In its substance was a pellet of No. 4 shot, which was removed, and also the disorganised portion of nerve, which was an inch and a half

in length. An attempt was then made to bring the ends together, but the strain was so great that the stitches would not hold, but cut out almost immediately. It was then determined to make use of a plan which had once before been used in a case of division of the musculo-spiral nerve by a kick from a horse's hoof. The method adopted consists in dissecting the nerve from its bed for about six inches up the arm and an equal distance down the forearm. The skin over the front of the elbow was then reflected and the nerve brought across the anterior aspect, where it was readily united by three catgut sutures passed through the sheath and the nerve substance of the proximal and distal ends. The nerve thus joined was placed under the flap of skin which had been dissected up from the anterior aspect

of the forearm and in front of the internal condyle instead of behind it. The wound above and below was left open to prevent tension, and the skin covering the nerve was united by one suture to the skin on the back of the forearm. The wound was dressed with sublimate gauze and a splint applied to the arm in a partially flexed position. On Dec. 11th rough sensation returned in the fingers and continued to improve gradually until March, 1891, when it was practically normal, the lightest touch with a horsehair being readily felt at every point. The fingers could also be flexed and extended to their fullest extent, and the engravings will show how well flexion and extension of the forearm could be performed. The highest temperature recorded was 101·4°F. on the first evening after operation, and 100·4° on the second evening. After that it was never above 99°, and reached the normal on the eighth day."

Remarks.—The plan which I adopted in this case, although of limited application, adds another aid to the resources of surgeons dealing with destructive lesions of nerves, which in their normal way pursue a tortuous course.

Lower Seymour-street, W.

CASE OF HYSTERIA IN A CHILD SIX YEARS OF AGE FOLLOWING INFLUENZA.

BY T. C. RAILTON, M.D. LOND., M.R.C.P.,
PHYSICIAN TO THE MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN.

MARY T——, aged six years, was admitted into the hospital on June 4th, 1891. The family history is as follows: Father, mother, and three other children (four years, seven years, and ten years) all enjoy very good health. There is no history of hysteria, insanity, or other nervous affection in any of the family. One child died from convulsions during dentition. The patient was born naturally, cut her teeth early, and walked before she was a year old. With the exception of childish ailments she has had fairly good health; although never stout, and although she has not been to school, she knows her letters and can count, and has always been remarked as the brightest and most intelligent child of the family. About the middle of May the father was suddenly seized with influenza, and was confined to his bed for a week. Four days later the youngest child of the family was taken with it, and the following day the three other children, including the patient, were struck down with it. The mother did not entirely escape the disease, but was never confined to bed. Mary had it far more seriously than any of the others; she showed the usual symptoms—severe pains in the head, high temperature, &c., and is said to have been totally unconscious for about ten days. Since the attack she has slowly convalesced, and is now able to sit up in bed, but has neither walked nor spoken since the onset of the disease.

Condition on admission.—She lies in a very apathetic condition, but is perfectly conscious. Her eyes wander about in a furtive way, or when closed the eyelids are in a constant state of blepharospasm. When given a doll she holds it in an aimless manner, and does not play with it. A careful examination fails to detect any disease in either heart, lungs, or abdomen. The urine is free from albumen, the tongue is clean, and the bowels rather constipated. The pupils are widely dilated, but react to light. She is thin, but has good colour in her cheeks. All muscles react normally to electricity, and there is no motor paralysis. When she puts out the right hand it is affected with a wavy clonic spasm; the left is similarly affected, but to a less degree. Although she never speaks, she cries a great deal with a sort of perpetual whine, which evidently originates in the larynx. On June 8th she was made to sit up in bed. She moves her head slowly from side to side in an imbecile manner and appears to take little notice of anything. She has to be fed. Although she looks idiotic, it is very clear that she understands what is said to her. All efforts to make her talk have been in vain. She is perfectly insensitive to the prick of a pin in any part of the head, body, or limbs, even when such sensitive parts as under the nails of the fingers and toes are chosen as the seat of experiment. When taken out of bed and held up under the arms she holds her legs at right angles to the trunk with the utmost obstinacy until compelled by physical exhaustion to allow them to drop. When thus treated she can just stand with a little assistance.—June 15th: The patient can now manage to walk a few steps alone, but soon begins to stagger and would fall were she not supported. She is still universally analgesic. She looks more sensible, but does not speak. There is still movement in the right hand, but it is mainly confined to the fingers, especially the index, which moves laterally even when the hand is at rest, and occasionally the left hand has the same movement, but it is not continuous. She gives her hand or puts her tongue out when told; she can pick up a pin quite well with either hand. For the last few days she has been compelled to feed herself. The treatment has consisted of the faradaic current and cold shower baths.—July 18th: Since the last note the patient has steadily improved; the analgesia has become less and less marked, so that at the present time the prick of a pin anywhere is clearly both felt and resented. The walk has become almost normal, and she walks daily from her bed into an adjoining ward. The movements of the hands have entirely ceased and she feeds herself quite easily. The greatest difficulty has been and is still experienced in compelling her to speak. This she never does unless under compulsion, and even then she only whines out single words which she is told to say, such as her own name, "Yes" and "No" &c. She never speaks spontaneously nor forms a consecutive sentence. On July 20th she was sent home.—July 23rd: Came as outpatient. Speaks more distinctly and smiles when joked with. Looks much more intelligent.—Aug. 6th: Brought again to the hospital. She has almost resumed her normal manner. Asks for what she wants and plays as usual with the other children. Sensation perfect.

Manchester.

PARACENTESIS ABDOMINIS.

BY W. F. HEARNDEN, M.R.C.S., &c.

THE following cases of paracentesis abdominis may be of some interest to the readers of THE LANCET, occurring as they did in private practice, and are such as come frequently under the notice of the general practitioner. Most works on medicine advise the operation of tapping the abdomen in ascites to be delayed as long as possible; still, at the same time, one cannot help thinking that it must be better for a patient with a large quantity of fluid in his abdomen to get rid of his burden quickly rather than wait for the various remedies, diuretic and purgative, which are ordered to be given in these cases, and which are admitted to act better after the operation is performed.

Looking through a few works on the subject, I find the following arguments for and against tapping. Watson: "Wherefore in my judgment paracentesis in abdominal dropsy ought seldom to be performed unless the quantity of liquid is so great as to occasion painful distension," &c. Strumpell: "Therefore we should not tap in ascites as a rule unless the indications for the operation are urgent." Fagge: "It [that is, tapping] is not to be held useless." "It affords great relief," and "should never be delayed when urgency of symptoms demand its performance." He also mentions a case of Dr. Grainger Stewart's, in which the patient with a syphilitic affection of the liver was tapped twenty-one times, and, 12,120 ounces of fluid having been removed, she regained a fair state of health. He states the prognosis is in all cases of ascites very unfavourable. With cirrhosis death occurs in six months, and implies that the operation should be put off as long as possible. In Quain's Diccionary of Medicine it is stated paracentesis should be put off as long as possible. Hughes Bennett: "Even then [referring to cases in which the swelling and embarrassment are very great], although temporary relief may be obtained by the operation, there is every reason to believe that in the majority of cases life is in no way prolonged." Niemeyer: "The abdomen should only be tapped where life is immediately endangered by obstruction of the respiration or by a threatened gangrene of the skin. Bristowe says: "This operation is usually delayed as long as possible, and on the whole no doubt properly so," but he

states that often the beneficial effects of remedies are much more marked after the operation. Flint is decidedly in favour of the operation, and says the views held heretofore are erroneous. "Tapping effects promptly without perturbation, and without impairing the vital powers, the object for which diuretics and cathartics are employed, the latter being generally ineffectual, disturbing the digestive functions, and enfeebling the powers of life." He has reported twenty cases in which the operation was performed once in eleven cases, and the remaining nine cases repeated from three to thirty times. Roberts recommends paracentesis, and states that in cirrhosis it may not uncommonly be performed as a curative measure, and "also that the fluid may be taken away again and again." In the cases I report the operation always gave great relief at the time, and in two has apparently been curative; not so in the others, although they seem to have been benefited and life prolonged. In no case, as far as I can judge, has death been accelerated; the patient never seemed exhausted, and no symptoms of peritonitis were ever shown. An ordinary hydrocele trocar was used in all but one case, and as much fluid drawn off as possible.

CASE 1.—Robert M——, aged forty-four, heavy drinker, had gone out to Australia in 1881, and, returning, ascites developed on homeward voyage. The ship's surgeon wished to tap him, but this was refused. He was seen by two eminent physicians in London, both of whom pronounced it a case of cirrhosis, one saying it would be a case of tapping to the end. No heart or renal disease. Tapped with a Southey's trocar and fluid drained slowly. On May 11th, 1881, 20 quarts were drawn off in six hours; June 4th, 15½ quarts; June 23rd, 15 quarts; July 16th, 7 quarts (tube blocked by small piece of fibrine); July 23rd, 17 quarts; Aug. 11th, 20 quarts; Aug. 28th, 16½ quarts; Sept. 13th, 14 quarts; Sept. 30th, 11 quarts. At the same time he was purged, took diuretics, and green iodide of mercury was given among other remedies. Between the tappings of Sept. 13th and 30th he went to Matlock, where a pack was put over the region of the liver, which brought out a fine crop of papules. He also took Turkish baths. He was tapped nine times, and is now quite well.

CASE 2.—Robert D——, farmer, aged thirty-three. Heavy drinker. Cirrhosis of liver and ascites. Tapped 1883: July 28th, Aug. 10th, Aug. 24th, Sept. 4th, Sept. 20th, Oct. 5th, Oct. 15th, Oct. 27th, Nov. 9th, Nov. 21st, Dec. 9th, Dec. 30th. 1884: Feb. 1st, March 17th, April 21st, May 10th, May 24th, June 13th, July 2nd, July 26th. Tapped altogether twenty times. Death preceded by hæmatemesis. The quantities of fluid removed each time I cannot state, although they were large. He continued his drinking habits to the last.

CASE 3.—Henry H——, parish clerk, aged sixty-six. Ascites. Has been a temperate man. No pain in the abdomen; no heart or renal disease. Sallow complexion. Tapped 1886: May 10th, June 2nd, July 1st, July 24th, Aug. 13th, Sept. 11th, Sept. 30th, Oct. 15th, Oct. 29th, Nov. 17th, Nov. 30th. 1887: Jan. 13th, March 13th. Tapped altogether thirteen times. The ascites then left the abdomen, but as the legs were very œdematous they were punctured and sloughed in places, allowing a large discharge, which continued till his death, on Aug. 2nd, 1887. To the best of my belief no ascites returned in the abdomen. The usual quantity taken away each time was a fair-sized pailful.

CASE 4.—Susan L——, aged sixty-three, washerwoman. Ascites; no heart or renal mischief. I confess I cannot say certainly the cause of the ascites. The patient was jaundiced slightly at first, but afterwards deeply. No pain. No tumour to be felt in abdomen. Tapped 1887: Jan. 12th, March 7th, April 6th, May 24th, June 11th, July 13th, Aug. 5th, Sept. 9th, Sept. 29th, Nov. 19th, Dec. 28th. 1888: Feb. 14th, Feb. 19th. In all thirteen times. Once during the time she left the neighbourhood and saw some herbalist, but the dropsy increasing, he ordered her to see a doctor at once, as "the water was rising and would drown her heart"; and the poor old lady was in a great state of fright; but a tapping soon relieved her. Here again the amount of fluid was not measured, but often a pailful was drawn off. Shortly before death she left the neighbourhood, and I know she lived but a few weeks after the last tapping.

CASE 5.—Jane C——, aged forty-five. Case of peritonitis, probably tubercular. Tapped 1888: Jan. 9th, Feb. 3rd, Feb. 26th, March 19th—in all four times. Post mortem the bowels were all matted together. The tapping gave great relief to breathing and general symptoms, and in my opinion did not accelerate death.

CASE 6.—Wm. M——, aged fifty-five, seaman; served abroad twenty-seven years in all climates. Has suffered badly from dysentery. Keeper of wine stores in an asylum latterly. Has drunk freely. Morbus cordis; ascites. Tapped 1888: April 21st, 19 pints; May 15th, 16 pints. He was given pil. hydrarg., 1 gr.; pulv. scillæ, 1 gr.; pulv. digitalis, 1 gr., three times a day, and also opium, for relief of pain at times. At present time is very well, has gained flesh, can walk a mile. Still takes the opium occasionally. No return of ascites.

CASE 7.—Wm. T——, aged fifty-three, merchant; a heavy drinker; cirrhosis of liver with ascites. Tapped Aug. 16th, 1887. Freely purged with sulphate of soda and all stimulants knocked off. After a time, however, ascites returned and he was tapped in 1888, July 2nd, July 18th, Aug. 7th, Sept. 5th, Oct. 3rd, and died Oct. 16th, 1888. He was tapped six times, but more than a year elapsed between the first and last tapping. Continued his drinking habits.

Sutton, Surrey.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

TRANSFUSION OF SALINE SOLUTION FOR HÆMORRAGE IN A CASE OF CUT-THROAT; RECOVERY.

BY P. TYTLER, M.D. ABERD.,
SENIOR SURGEON, ANCOATS HOSPITAL, MANCHESTER.

M. K——, aged thirty-two, was admitted to the hospital on Aug. 31st, in a very collapsed condition; clothes saturated with blood. An incised wound was found in the neck, extending from just below the angle of the jaw on one side to a corresponding point on the other, and passing between the hyoid and thyroid cartilages, the wound being deepest in the middle. On separating the edges of the wound a hole about the size of a sixpence was seen in the thyro-hyoid membrane, through which air was passing. The sheath of the carotid artery was laid bare, but not opened, on the right side. Arterial hæmorrhage had ceased, but venous hæmorrhage and general oozing still took place. All bleeding was arrested, the wound well washed with antiseptic lotion, and the opening in the thyro-hyoid membrane closed with catgut sutures. The wound was dressed with iodoform gauze and wood wool tissue; the head, well flexed on the chest, was kept in this position by a triangular bandage, the two ends of which were passed in front of the shoulders and tied at the back. The patient was in a very collapsed condition; appeared almost bloodless; lips and conjunctivæ pallid; pulse very quick, feeble, and fluttering, and could best be felt at the wrist. An attack of syncope came on; but the patient rallied on injecting ether. In about ten minutes another attack came on, and her condition became so bad that transfusion was decided upon. A small cannula from an aspirating case was attached to about two feet of narrow indiarubber tubing with a small funnel at the other end. A solution of common salt (about eighty grains to the pint of water previously boiled) was put into a jug, and kept at about 99° F. The median basilic vein was now cut down upon, a double ligature passed under it, and the vein opened between the ligatures. Air was now excluded from the apparatus by filling it with saline solution poured from the jug into the funnel, and the cannula then introduced into the vein. The funnel was kept about half full, and thus about fourteen ounces of the solution were allowed to run into the vein; this occupied about half an hour. At the end of this time her condition had considerably improved; lips and conjunctivæ slightly coloured; pulse stronger and fuller, being readily felt at the wrist. She whispered she felt much better, and was quite comfortable. The cannula was removed, the two ligatures tied, and the skin united by a few horsehair sutures. In half

an hour after the operation she had a slight rigor, and vomited a little fluid containing a few blood-clots. Temperature 101·6°. — Sept. 1st: The patient passed a good night, had slept well; had taken brandy, beef-tea, milk, and Benger's food at intervals; no pain on swallowing. Temperature 100·2°; face still very blanched; wound dressed. In the evening she became noisy and delirious; temperature 99°.—2nd: Slept fairly well, delirious when awake; had taken large quantities of liquid nourishment; temperature 99°. Wound dressed; fair amount of discharge. Temperature in evening 100·2°. It was now found that on admission the patient was suckling an infant, and on examination the condition of her right breast might account for some of her symptoms. This yielded to treatment, and on Sept. 4th the temperature became normal; no delirium; general condition much improved; pulse good; no pain; wound dressed; discharge not excessive, and granulation taking place; wound in arm quite healed.—12th: Improvement uninterrupted; wound healed except in middle, which still discharges a little, the edges of the skin being in almost perfect apposition. Is now taking fish diet.—26th: Wound quite healed, leaving linear cicatrix. She is taking common diet, gets up daily, and says she feels quite well; has no pain on swallowing. She will be discharged in a few days. For the notes of the case I am indebted to Mr. J. Simcock, senior house surgeon.

Ancoats.

CARBOLIC ACID POISONING; RECOVERY.

By JAMES A. RIGBY M.D. LOND., &c.,

PHYSICIAN TO THE PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY.

CASES of poisoning by carbolic acid are not very uncommon, and, owing to the increasing use of the acid, may possibly become more numerous; therefore, the following notes should prove interesting.

A few minutes before 1 A.M. on a Thursday I was hurriedly summoned to Ellen C——, domestic servant, aged nineteen, residing a few yards from my house. On arrival, I found her in an attic bedroom, unconscious, pale, and breathing with great difficulty; the mouth, lips, and about the chin presented whitish shrunken patches. A strong smell of carbolic acid pervaded the room and stairs; pupils were much contracted, and insensitive to light; transparent tenacious mucus dribbled away from her mouth and ran down her chin. Pulse distinctly perceptible, but somewhat irregular. About ten minutes prior to my arrival she had intentionally swallowed a quantity of crude carbolic acid—over an ounce, I afterwards ascertained. A mustard emetic had already been given, and had caused slight vomiting. With considerable difficulty I immediately administered by the mouth from six to eight ounces of olive oil, the greater part of which was retained. Shortly afterwards I gave two ounces of ipecacuanha wine, as the handiest emetic I had; this, however, produced no emesis. The patient's condition now appeared very critical; the pulse became very feeble, irregular, and jerky; the breathing shallow, rapid, and noisy; the pupils very much contracted, and the conjunctivæ totally insensible. There was also tonic spasm of the muscles, more particularly in the arms and about the mouth, so that considerable force was required to straighten the arms, which were flexed, or to open the jaws. No opisthotonos or episthotonos. About 2 A.M., her condition continuing much the same, as there had been no vomiting, titillation of the fauces was resorted to, but without effect. Owing to her insensible condition, the rigidity of the mouth, and a swollen state of the passages, a gentle attempt to introduce the stomach pump failed. A stimulating enema of milk, eggs, and whisky improved matters somewhat. This was repeated every three hours. The patient continued in about the same condition until 9 A.M., when she vomited twice; the ejected matters had a strong odour of carbolic acid. She still continued insensible, but there was a manifest improvement in both pulse and general appearance. Shortly before 2 P.M. she had an involuntary motion, and immediately afterwards recovered consciousness. She now complained of soreness of the mouth and throat, with difficulty and pain on swallowing, and a short hacking cough. The treatment now was for her to sip milk beaten up with white of egg and to suck pieces of ice. On Friday the urine emitted a very foul odour, but not of carbolic acid; it was of a dirty blackish colour, neutral reaction, sp. gr. 1042, no sediment; on boiling there was a precipitate of phosphates which was soluble in acetic acid. On adding cold nitric acid a dense crystalline precipitate of nitrate of urea was thrown down; this was immediately dissolved on dilution with water. There was no albumen or sugar. The microscope revealed nothing. She had passed a good night, pupils fairly dilated and reacted to light; she was rather irritable, but answered rationally; around mouth and on neck were brownish discolorations; tongue, throat, and mouth still very sore, and voice husky. From this time she made an uninterrupted recovery.

The points of interest in this case seem to me—the recovery after such a large dose of the acid had been absorbed, evidenced by the nervous symptoms, total unconsciousness for thirteen hours, rigidity, insensibility of conjunctivæ, and evident anæsthesia of gastro-intestinal tract; and the condition of the urine, with its markedly high specific gravity and abundance of urea.

Preston.

A CASE OF PLACENTA PRÆVIA.

By E. A. PIGGOTT, L.R.C.P. & S. EDIN., L.S.A. LOND.

ELLEN H——, aged forty-one years, wife of a gardener, was taken in labour with her fifth child about 1 A.M. on Sept. 9th, 1890. She had suffered considerably during the last two months of pregnancy from a severe pain in the side, but only once during the whole period of utero-gestation was there any appearance of hæmorrhage, and that very slight, about the termination of the fifth month, for which she did not seek medical advice. Pregnancy had advanced to within a week or so of full term when labour commenced. I was summoned to the case at 5.30 A.M., and then found that the pains, although fairly regular since 1 A.M., had not been strong enough to warrant the woman in charge (according to her idea) in sending for me, but, fortunately for the patient, advice was then sought. Upon arrival I was informed that the patient had been losing blood in large quantities since 1 o'clock. She was blanched and almost pulseless, with cold clammy perspiration, and the usual symptoms of impending death. On making a vaginal examination the os was found dilated to about the size of a crown piece. The examining finger passed through an enormous amount of blood-clot, which appeared to almost entirely fill the cavity of the lower or cervical zone of the uterus, beyond this the placenta could be plainly made out, and occupied a direct central position. It was impossible to diagnose the fœtal presentation. Under such circumstances there was only one course to adopt—i.e., to perform version and deliver without further delay. After administering a stimulant some little difficulty was experienced in passing the hand past the placenta, but eventually a foot was brought down and secured by a loop of tape, the delivery then being accomplished with comparative ease. The placenta came away within a few minutes, and good uterine contraction was ensured by the administration of a full dose of the liquid extract of ergot. The patient made a good though somewhat protracted recovery.

This case is instructive as illustrating the fallacious theory that the hæmorrhage in cases of placenta prævia is most severe *during* a pain. Doubtless clots of coagulated blood are forced from the lower or cervical zone of the uterus and expelled externally during a pain; but these clots have been slowly forming from blood effused from the open uterine sinuses during the *interval* of pain, the tendency of uterine contraction in cases of placenta prævia being, as in all other cases, conducive to the arrest of uterine hæmorrhage. My thanks are due to Mr. R. W. Waring of Cavendish, who saw the patient with me in consultation, and rendered valuable aid in a most anxious case.

Clare, Suffolk.

INFECTIOUS DISEASES, DEWSBURY UNION.—The local authorities in the Dewsbury Union have resolved that a united district, comprising Batley, Heckmondwike, Mirfield, Soothill, Upper Gomersal, Thornhill, Liversedge, Ravensthorpe, and Birstal, should be formed for the purpose of providing accommodation for the treatment of infectious cases.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.* lib. iv. Proœmium.

LONDON HOSPITAL.

MALIGNANT STRICTURE OF THE ŒSOPHAGUS; GASTROSTOMY; DEATH FROM PERFORATION OF THE AORTA.

(Under the care of Mr. MANSELL MOULLIN.)

THIS is an interesting case of cancerous stricture of the œsophagus, in which the operation of gastrostomy was performed at an unusually late stage of the disease. The patient had been unable to take any form of nourishment for some days before admission on account of complete closure of the stricture, and must therefore have been in an extremely low state—in fact, death must have ensued before long; yet the operation was well borne, and the important first stage produced no reaction. Life was prolonged for many months, the patient being in comparative comfort during that time. Extension of the growth to the aorta, with consequent fatal hæmorrhage, is one of the rarer causes of a fatal ending in this disease. A somewhat similar case was recorded last year by Dr. Vimont. Much difficulty is frequently experienced, in the after-treatment of the gastric fistula, in the prevention of leakage of gastric juice from it. This is proved by the numerous suggestions made by various surgeons for the remedying of the condition. The plan adopted by Mr. Moullin proved very satisfactory.

J. B——, a lighterman, sixty years of age, was admitted into the London Hospital on Sept. 26th, 1890, for stricture of the œsophagus. The patient, who was much emaciated, stated that eleven months before, while he was recovering from an attack of influenza, he suddenly found himself unable to swallow. In a few hours this passed off without leaving any sensible obstruction. Five or six weeks later a second attack occurred, and lasted for nearly two days, and since that time he had experienced gradually increasing difficulty. On two occasions there had been complete obstruction for upwards of forty-eight hours, and at the time of admission he had not been able to swallow anything solid or liquid for three days; any attempt brought on violent coughing, during which the food returned. There was no history of injury or of any corrosive liquid having been swallowed, and the patient stated that he had never suffered from syphilis. The cervical glands were not enlarged, and there was no evidence of any intra-thoracic growth. On examination with a bougie, an obstruction was felt eleven inches from the incisor teeth—opposite, therefore, the left bronchus. Down to this point the instrument passed easily and without any spasm; as soon as this was reached a violent fit of coughing followed, and although several attempts were made, and various kinds of bougies used, none succeeded in passing through.

As the patient was unable to swallow even liquids except drop by drop, and it was plainly impossible to improve his condition materially by means of nutrient enemata, it was decided to perform gastrostomy at once. The usual incision was made parallel to the lower margin of the ribs upon the left side; the fibres of the rectus separated longitudinally with the hope of forming a kind of sphincter, and the greater curvature of the stomach drawn forwards from under the liver and secured to the front wall of the abdomen by a double set of sutures—one of silk, passing through the whole thickness of the abdominal wall and the serous and muscular coats of the stomach; the other of catgut, fastening the outer coats of the stomach to the skin and parietal peritoneum. The wound was dressed with iodoform and covered with wood-wool, and nutrient enemata given every four hours.

The operation was not followed by any reaction, the temperature continuing subnormal, and the dressings were not disturbed until the fourth day. The wall of the stomach was then punctured with a tenotomy knife, a small rubber tube introduced, and two drachms of peptonised beef-tea injected. This was repeated every two hours, and the amount gradually increased until it was found that the stomach had recovered sufficiently and nutrient enemata could be dispensed with. In a month's time the amount per diem had reached eighty-four fluid ounces divided into six meals, consisting of eggs, custard, minced meat, bread-and-milk, with six ounces of brandy. The patient's weight now began to improve, rising gradually from 6st. 7½ lb. to 8st. 2lb., an increase of nearly one-fourth.

On Oct. 10th the patient attempted to swallow a small quantity of milk. The immediate effect was violent coughing, followed in a few hours by a rigor, the temperature rising to 101° F. The next morning there were signs of consolidation at the left base, and in a day or two the area of dulness reached nearly as high as the spine of the scapula. Some foreign material had evidently entered the left bronchus, and it was upwards of six weeks before the lung became clear again. The amount of expectoration at first was not very great, but it soon became enormous, upwards of a pint a day, and this continued so long as the patient lived. The persistent coughing, too, proved most trying, as it rendered the retention of the tube in the fistula a matter of great difficulty. No true sphincter action was ever developed. The gastric juice began to escape about ten days after the operation, and caused much irritation around the edges of the wound. An attempt was made to prevent this by dusting bicarbonate of soda freely over the surface, but it did not seem to have any effect. Finally, it was prevented by pressure; in the intervals between the meals the tube was withdrawn altogether, and the opening plugged with oiled lint, over which was placed a sponge or a thick pad of absorbent cotton moistened with bicarbonate of soda. Later, when the patient had regained his strength and was able to feed himself, he found it more convenient to keep the tube in permanently, fastening it with a clip, and packing it thoroughly all round. In time the edges of the wound became quite hard; and although there did not seem to be any power of contraction, it is probable that during the fits of coughing a certain amount of pressure was exerted by the rectus. The method of feeding was soon learnt by the patient, and he became quite expert. For a time he was induced to masticate the food in his mouth and eject it down a tube into a funnel attached to the stomach, but this had to be abandoned. He complained that it made his stomach roll, and gave him pain; and on two occasions small portions of food were swallowed, and led to symptoms similar to those that occurred a fortnight after the operation, but fortunately not so severe. The improvement continued for some months, and the patient was enabled to get up and go out in the garden when the weather permitted it. The maximum weight was reached about the end of May; then suddenly he seemed to become much weaker, and took to his bed again. On June 14th, during a fit of coughing, profuse hæmoptysis set in, and death followed almost instantly.

On post-mortem examination, a large, rugged, epitheliomatous ulcer was found opening up the left bronchus where it crosses the œsophagus, and a small pinhole aperture in the aorta by the side of it. In the lung there were several patches of old broncho-pneumonia, but nothing very recent. There were no secondary deposits.

Remarks by Mr. MOULLIN.—This case is of some interest from the light it throws upon the relative merits of gastrostomy and intubation in the treatment of certain cases of malignant stricture of the œsophagus. At the time of admission there was no option, as nothing could be passed through the stricture; had the case been seen earlier, before the obstruction was so complete, or later, after ulceration had set in, intubation might have been attempted; but it is very doubtful whether it would have been as successful either as regards the degree of comfort or the duration of life. After the operation the patient suffered very little pain and scarcely any inconvenience, and that in spite of the persistent cough which favoured the escape of the gastric juice and rendered the treatment of the fistula unusually difficult. On the other hand, if intubation had been tried, it is very doubtful, from the amount of irritation a bougie caused, whether the tube (which must have been a long one) could have been retained at all. Then as regards duration of life, it is difficult to see, considering the way in which the case terminated, how intubation could have succeeded better than gastrostomy. Indeed, it is not

improbable that the pressure of the tube during the attempts at swallowing and coughing would have materially increased the rapidity of the ulceration. Ten days after the operation there was already a communication between the œsophagus and the left bronchus, and this became so large that even if the tube had prevented food from passing into the lung it would almost certainly by its friction have helped the entrance of mucus, epithelial débris, and ulcerated particles from the surface of the growth. As it was, the patient suffered from three separate attacks of pneumonia, due in all probability to this; and this case certainly suggests that whatever may be the relative merits of the two methods when the stricture is opposite the cricoid cartilage and a short tube can be used, gastrostomy is to be preferred when the intra-thoracic part is involved. The extraordinary amount of expectoration as soon as the ulceration had extended into the air-passages is worth noting. Godlee, in discussing the diagnosis of cavities in the lung, has shown that upwards of a pint may come within twenty-four hours from a space that would not hold as much as two ounces; and in the present instance that quantity came on many days for weeks together almost entirely from the trachea and left bronchus. The irregularity with which the discharge is brought up, and the odour (for, although it was very nauseous in this case, it had not the peculiarly offensive character frequently met with in bronchiectasis) are probably worth more in diagnosis than the simple amount. The duration of the case from the time the symptoms were first noticed was a little more than twenty months. The weight at the time of death was only 3 lb. less than the maximum reached in hospital, so that it is just possible, had the disease not extended in the particular direction in which it did, that the patient might have survived some time longer.

PADDINGTON GREEN CHILDREN'S HOSPITAL.

A CASE OF DEPRESSED FRACTURE ON THE LEFT SIDE OF THE SKULL, WITH SYMPTOMS; TREPHINING; RECOVERY.

(Under the care of Mr. WATSON CHEYNE)

THE interest of the case lies in the relief of the symptoms, which pointed to a lesion on the right side, by the removal of the depressed fragment on the left side at the seat of injury, and the explanation of the various phenomena is a matter of some difficulty. One can hardly explain the twitching on the left side without supposing that there had been a distinct lesion, such as hæmorrhage, over the right motor area, and its cessation immediately after trephining was probably due to the relief of pressure. The subsequent paralysis was possibly functional, the result of the previous over-stimulation of the cells in the motor area; it can hardly have been due to pressure, seeing that the child recovered consciousness soon after the operation, and the motor paralysis was so transitory. Another explanation suggested at the time was that the case was simply one of commencing meningitis. Against that view is the localised nature of the irritation, for had a meningitis spread from the wound one would have expected the twitching to have been equally if not more marked on the right side than the left. For the notes of this case we are indebted to Dr. G. A. Sutherland, registrar to the hospital.

F. V——, a boy aged four years, was brought to the hospital on Aug. 23rd, 1888. His mother stated that three days previously he fell from a balcony fifteen feet high on to a stone floor. When picked up he was unconscious, and severely bruised about the left side of the head, and there was a lacerated wound above the left eyebrow. He regained consciousness in about seven minutes, complained of severe pain in the head, and soon became very sick. The head was dressed with plaster by a chemist. The sickness and vomiting continued until the day before admission, and was accompanied by restlessness, fever, and pain in the head. On the morning of admission his mother noticed that he seemed duller, and that there was twitching about the eyes and hands. The bowels had not been opened for two days, and he had taken very little food since the accident. There was nothing to note in the previous health or family history, and the child was quite well up to the time of the injury. In the out-patient room the boy was conscious, but seemed dull and stupid. The right eye was widely open and the left upper lid slightly drooping. The right pupil was dilated, and reacted imperfectly to light; the left was normal in size and reaction. There were no signs of facial or other paralysis. While he was in the out-patient room distinct twitching came on in the left side of the body, the face, hand, and arm being more affected than the leg. At intervals this spread to the right arm and leg. This condition continued until the operation (two hours and a half later), the twitching at times being very severe, and during the whole of this time the boy was quite unconscious. On Mr. Cheyne's arrival he decided to operate, and as the symptoms pointed to a lesion on the right side of the brain by contrecoup he intended to trephine there, but first of all examined the wound on the left side. In the left frontal region, about one inch above the orbit and slightly to the outer side, was a large lacerated wound discharging pus, but no bare bone could be felt. Having enlarged this opening and detached the periosteum, he exposed a depressed fracture of the frontal bone just above the outerside of the left orbital process, from which a fissure ran vertically upwards for an inch and a half. He then trephined over the depressed bone, and snipped off with bone forceps some adjoining depressed parts. The dura mater seemed healthy, and was not opened; there was no bulging, and pulsation was well marked. There was considerable venous hæmorrhage, which was checked with cold mercuric solution. The edges of the wound were brought together as far as possible, and a dressing of sal alembroth gauze applied. It was then resolved to watch the effects of this operation before doing anything further. The temperature on admission was 102·8° F., and after operation 100·4°. The boy slept quietly, and was quite conscious on awaking. There was no recurrence of the twitching, but the left arm and leg were paralysed as regards motion. On testing sensation with pins he seemed to feel equally well on the two sides, but always used the right arm or leg to brush away the irritant on the left. On the following day he was quite bright, and the temperature was 99°. The paralysis of the left side was much less marked. It passed off entirely in a few days. There was no more twitching or other sign of cerebral irritation, the wound was entirely healed on the thirteenth day after the operation, and the patient was discharged cured on Sept. 17th. When seen in July of this year he was and had been in perfect health, and the only trace remaining was a small depression in the skull, marking the spot where it had been trephined.

Medical Societies.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

THE opening meeting of the tenth session of the above Society was held on Friday, Oct. 2nd, in the Board-room of the West London Hospital, Dr. Chas. Wells, President, in the chair.

Presidential Address.

Dr. WELLS selected for the subject of his address "Recollections of the West London Hospital." He began by referring to the difficulty of chosing a subject of address, and thought that it would be interesting to review the former history and progress of the hospital with the advance of medical science and education since he was first associated with it as an articled pupil in 1864. The hospital was instituted in 1856 on its present site. The east wing and centre building were opened in 1871, the new out-patient department, &c., in 1878, and the west wing in 1883, giving a complement of 101 beds. Such was its rapid progress under able management, and by the recent acquisition of adjoining freehold property its accommodation will shortly be doubled, an increase urgently demanded by the remarkable growth of population in the West of London. Dr. Wells referred to the eminence of the past and present staff, medical and surgical. He lamented the loss by death of Drs. Bence-Jones and Milner Fothergill; Messrs. Teevan and Fairlie-Clarke; and amongst those living eulogised Drs. Ferrier, Maudsley, Priestley, and Thorowgood, Mr. Christopher Heath, and Mr. Keetley, the present senior surgeon and founder of this Society. He also mentioned Mr. William Bird, a former surgeon, and present indefatigable chairman

of the hospital, who has done so much to place it in its present prosperous condition. The President detailed some interesting cases which were admitted in 1864: (1) Hydatids of the abdominal cavity; (2) large sacculated aneurysm of abdominal aorta; (3) conjunctival hæmorrhage in case of hæmophilia; (4) recovery from traumatic tetanus. He compared their treatment with that of the present day, and, in alluding to the treatment of wounds with chlorine water in those days, forcibly pointed out the remarkable progress of modern surgery under the security of strict antisepsis. Dr. Wells then spoke of the high standard of medical education of the student of to-day, but in doing so wished to express his regret at the abolition of the old apprenticeship system. He pointed out the advantages of pupilage, how he himself had benefited by it, and how the average student was now despatched from the hospital into the fields of private practice fully equipped with degrees or diplomas and scientific detail, but destitute of much practical knowledge invaluable in the treatment of disease. He fully appreciated the difficulty of reviving the system, but ventured to suggest that of the five years of medical curriculum recently ordained by the General Medical Council, the first year should be served in apprenticeship, and the present entrance examination of the conjoint board passed after that period, and regarded as a matriculation of the profession. Dr. Wells congratulated the Society on its increasing prosperity with a roll-call of 340 members, and instanced how valuable the meetings were in promoting professional etiquette and good fellowship by the free interchanges of professional opinion and social courtesies. In conclusion, the President gracefully acknowledged the honour of his office, and promised an ever-ready devotion to its good work.

On the proposition of Dr. CAMPBELL POPE, seconded by Dr. ALDERSON, a hearty vote of thanks was accorded Dr. Wells for his able and interesting address. There was a large attendance.

Reviews and Notices of Books.

Diphtheria: its Natural History and Prevention. Being the Milroy Lectures delivered before the Royal College of Physicians of London, 1891. By R. THORNE THORNE, M.B., F.R.C.P.Lond., F.R.S., Assistant Medical Officer to H.M. Local Government Board. Macmillan & Co.

THE author may be congratulated on the selection, as the subject for his Milroy Lectures, of a disease which, although it has in a large degree baffled the sanitary administrator, has nevertheless received an amount of study which has led its natural history to be known in considerable detail. This knowledge has not hitherto been readily available for the many. The observations which have been made have not been the work of one man, nor are they to be found in any of the more familiar works of medicine; but they have remained hidden mainly in official reports made to the Local Government Board, and in the reports of medical officers of health, not easily accessible to the general reader. No one, moreover, who was not himself a trained and skilful observer could have unravelled the intricacies of a subject which has for years been obscured in a mass of literature often containing apparently conflicting statements, which had to be carefully compared and weighed before the facts of which they give account could be seen in their true light. Dr. Thorne has a peculiar fitness for the work he has undertaken. Familiar with the literature to which we refer, accustomed to the criticism of etiological reports, himself a careful student of diphtheria, and a contributor to the knowledge which has been gained concerning it, he has been able to review in a comprehensive manner all the circumstances of the disease, and to place before the profession a volume which will be read with the keenest interest.

After referring to the earlier history of the disease and to its inclusion with scarlatina in the statistics published by the Registrar-General, Dr. Thorne dwells upon the notable paper read by Dr. Longstaff before the Epidemiological Society, in which he contrasted the relative prevalence of diphtheria in sparsely and thickly-populated districts, and showed the change which was gradually taking place in this incidence. This change finds explanation in observations which Dr. Thorne makes later as to the increased opportunity which the disease has of late years had of being communicated by the aggregation of young persons in schools in towns. In discussing the distribution of diphtheria, the influence of soil, season, age, and sex are considered in much detail.

One of the most interesting chapters is devoted to a consideration of the relation of simple sore-throat to diphtheria. Dr. Thorne gives an account of outbreaks of diphtheria which were investigated by Mr. W. H. Power, Dr. Blaxall, Dr. Parsons, Dr. Bruce Low, and others, and which were preceded by throat illness not recognised at the time as diphtheritic. It will be recollected that Dr. Thorne discussed this subject in a paper read before the Epidemiological Society some thirteen years ago. He then suggested the possibility of progressive development of the property of infectiveness, and this view has certainly found acceptance in the reports of many of those who have observed the relation of ordinary sore-throat to obvious diphtheria. It is undoubtedly difficult to determine whether the ordinary throat ailments which have often been observed in a community to precede the appearance of the more formidable diphtheritic infection have themselves developed, after affecting a number of persons, into true diphtheria, or have only afforded a suitable soil in which the diphtheritic virus can develop. Dr. Thorne writes guardedly on this point, and states that while some observations have confirmed the theory which he enunciated in 1878, he is still "inclined to attach increasing importance to the view that much of the prevailing diphtheria is due to the circumstance that there exist a number of non-specific conditions of the fauces—inflammations and otherwise—which constitute a favourable soil for the reception and growth of a wandering diphtheria contagium." There is, indeed, no reason why the one view should be antagonistic to the other. Mr. W. H. Power commented in 1882 on the position which cases of trivial sore-throat occupied in connexion with severe or fatal cases of diphtheria during an epidemic at Pirbright. "Especially," he says, "was this apparent capacity of mere sore-throat for breeding malignant diphtheria noticeable in regard of families comprising many young children." This observation is of peculiar interest in connexion with the subject of school influence, upon which Dr. Thorne dwells at considerable length.

On the question as to the identity of scarlet fever and diphtheria the author has much to say. He recounts the experience of the London Fever Hospital, and contrasts that of the Metropolitan Asylums Board's Hospitals, during a period when cases of diphtheria were not received into these institutions, with what has been noted in a later period, during which they have been received in considerable numbers. The evidence is certainly strongly in favour of the view of the non-identity of the two affections, although it affords much reason for regarding the scarlatinal sore-throat as especially susceptible to attack by the diphtheritic virus.

After full inquiry into the part played by local insanitary conditions in the production of diphtheria, and into the evidence upon which Dr. Gresswell's theory of recrudescence of infection rests—subjects of infinite importance to the practitioner who has daily to advise as to the domestic arrangements which must be made to limit the extension of this disease in families,—Dr. Thorne discusses at length the growth of knowledge as to milk-diphtheria and diphtheria in the lower animals, particularly the later observations of Dr. Klein, which associate this disease with a definite malady

in cows, and tend to confirm the observations made some years ago by Mr. W. H. Power. He shows, also, how the laboratory experiments of Dr. Klein have explained the differences observed by Mr. Power in the incidence of disease on the drinkers of milk which is early consumed, and on those who have taken the milk after it has been stored for the purposes of cream.

It is impossible in the limited space at our command to do justice to this volume. It may be expected to stimulate further efforts to gain increased knowledge concerning the behaviour of diphtheria, and to develop methods of practice which will tend to limit the spread of this now disastrously fatal malady. The volume serves to show the difficulties which have attended these efforts in the past, and the high character of the work which has at length thrown so much light upon an obscure disease. The lessons to be learnt from its pages can and should be studied by everyone engaged in the practice of either curative or preventive medicine, for by their proper understanding much can be done to protect families from exposure to invasion by diphtheria.

The Art of Perfumery, and the Methods of obtaining the Odours of Plants; and the Growth and General Farm System of raising Fragrant Herbs. Edited by CHARLES H. PIESSE. Fifth Edition. Published by Piesse and Lubin, New Bond-street.

THOSE who would be acquainted with all that pertains to the art of perfumery cannot do better than consult this volume. It contains, in fact, a very admirable and complete account of the subject. The origin of the art, it is pointed out in the introductory pages, is lost in the depths of its antiquity, though no doubt it had its rise in the observance of religious ceremonies. Some idea, however, of the early existence of perfumes may be gained from the fact that the ancient Jews, among other nations of antiquity, were in the habit of anointing the bodies of their dead. Homer evidently makes reference to this in a passage in the "Iliad," where we read—

> "Venus, night and day, Daughter of Jove,
> All the corpse o'erlaid with roseate oil ambrosial."

It is interesting also to learn that Pliny traces the origin of perfumery to the East, where the luxury was extensively employed at a very early date, especially in those lands where flourished the aloe, cinnamon, sandal wood, camphor, nutmeg, and cloves. The reckless extravagance with which the Romans perfumed their baths and toilette is well known; while the use of perfume, not only in the form of incense, but also mixed in the oil and wax for the lamps and lights which were commanded to be burned in the house of the Lord, is a matter of common record in religious history. In Section II. of the work we read that as an art in England perfumery had attained little or no distinction until within the last thirty-five years, owing chiefly to the fact, the writer says, that those who pursued the trade maintained a mysterious secret about the processes.

The author complains that of our five senses that of smelling has been treated with comparative indifference; but he expresses the hope that, as knowledge progresses, the faculty of smelling will meet with a share of tuition equal to that which is accorded to the senses of sight, hearing, touch, and taste. Space does not permit of more than a mere passing allusion to the many interesting facts which are dealt with in the immense amount of valuable information contained in the work, and it must suffice to give an outline only of its scope and character. In the section on the theory of odours will be found excellent tables on the volatility and strength of odours and the optical properties of essences, such as specific gravity, indices of refraction, and rotation. These are followed by the "Gamut of Odours," ingeniously constructed by the late Dr. S. Piesse. If, he says, a perfumer desires to make a bouquet from primitive odours, he must take such as chord together; the perfume will then be harmonious, and in passing the eye down the gamut it will be seen what will constitute a harmony and what a discord of scents. As an artist would blend his colours, and we might add a musician his sounds, so must a perfumer blend his odours. Interesting is it to consider in this connexion the analogy which exists between colour and sound. The ancients it is known had some idea of this when they identified the musical gamut as the chromatic scale. The reader's attention is then drawn to the scale arranged by Field, in which he makes blue to coincide with "Do," purple with "Re," red with "Mi," orange with "Fa," yellow with "Sol," green with "La," olive with "Si," and thus, he says, the three primary colours, blue, red, and yellow, in combination or contrast, produce the most perfect harmony, as do the sounds "Do," "Mi," and "Sol." Their exact agreement is proved also by the metrochrome and the monochord; the former instrument enabling us to discover that in pure white light there are eight degrees of blue, five of red, and three of yellow, while the latter instrument tells us that eight parts of a string will give "Do," five "Mi," and three "Sol." This agreement is certainly curious and of great interest, indicating the existence of "some universal law of harmony." Section III. is devoted to flower-farming statistics, while Section IV. treats of "expression," distillation, absorption, *enfleurage*, and maceration. In Section V., which is the largest, no less than 154 pages are given to the account of the modes for obtaining the simple extracts of flowers. Section VI. follows with the processes employed for preparing essences of animal origin, like those derived from musk, civet, and ambergris. In Section VII., smelling salts (ammonia), snuff, and aromatic vinegars are discussed. The use of snuff is repudiated, although it is pointed out that by a singular perversity of human nature snuff-takers declare that they dislike scent. Snuff is regarded as a scent of high degree, and is compared to the ladies' smelling bottles, inasmuch as it is a medium for conveying ammonia to the nose. This view is hardly in accordance, however, with that expressed by Dr. S. Piesse in an early chapter, where we agree with him when he says that, "in speaking even compendiously of the physiological action of odours (scents), it is needful to remind the reader of the distinction existing between substances which irritate the nerves of the sense of touch and those which convey the impression of odours to the olfactory nerves. For certain solid substances when pulverised, such as glass dust, soap powder, *snuff*, and some of the gases—e.g., chlorine, ammonia, &c.,—stimulate the pituitary membrane. The effects produced by these substances are those of a body *touched*, not of a body *smelt*." Section VIII. gives the formulæ for preparing the most favourite bouquets and nosegays; while Section IX. embraces such related articles as sachet powders, perfumed paper, gems and shells, incense and pastils, perfume lamps, and vapourisers. Perfumed soap and its preparation, with all the machinery involved in its manufacture, occupy the thirty-five pages of Section X. The remaining ten, of shorter extent than the previous sections, include useful information on emulsines and emulsions, cold cream, pomades, and oils, hair-dyes and depilatories, absorbent powders and rouges, tooth powders and mouth washes, perfume colours, and a dissertation on the foreign tariffs on perfumery. The book contains seventy-one excellent illustrations, the bulk of which faithfully depict the various flowers employed in scent manufacture. It is, of course, only natural to find that the editor expresses himself strongly in favour of the value of perfumes, but it will be admitted that there is much that is reasonable in some of his arguments. As instances he

alludes to the remarkable influence of the sense of smell over the human frame: how that one odour will produce loathing, nausea, and vomiting—such as sulphuretted hydrogen or sewer air; while another acts in producing an exhilarating effect—such as the fragrance of the early morning country air, the sweetness of the sea-breeze, or the perfume exhaled in the season of haymaking. But putting aside all questions which involve the expression of opinion, the work is clearly entitled to rank as a worthy addition to the literature of science.

Illustrations of the Inductive Method in Medicine. By WILLIAM MURRAY, M.D., F.R.C.P.Lond., Consulting Physician of the Children's Hospital, Newcastle-on-Tyne. London: H. K. Lewis. 1891.

THERE are few things in medical literature more useful or interesting than the modest little volumes in which practitioners of individuality and experience convey their chief impressions to their profession. These impressions may not always be the most accurate exposition of medical or physiological truth. They may occasionally be fanciful or theoretical. But for all that they are valuable contributions to the literature and the art of medicine. Such is the nature of the little book which we are now noticing. It begins with an exposition of the place of the inductive method of reasoning and the deductive in medical science, in the form of an address at the opening of a winter session in the Newcastle College of Medicine, and this is followed by some papers in illustration of the inductive method, and others more clearly practical and clinical in their nature. For our own part, we prefer the individuality to the induction, and value most the latter class of papers, such as No. 8, on the use of belladonna in toxic doses for the removal of renal calculi, No. 9, on the treatment of anæmia and marasmus by the combined use of pepsin, pancreatinin, and ox-gall, and No. 10, on emphysematous dyspepsia. To Dr. Murray is due the great credit of being the first to treat an undoubted aneurysm of the abdominal aorta by pressure and under the influence of chloroform, and the careful narrative of this historical and fruitful case is a fitting subject for a closing chapter. Surgeons will not be less grateful than physicians for this record, or less generous in their admission of the great credit of the case because it was the work of a physician rather than a surgeon. The cases illustrating the use of belladonna in renal colic are very striking. Dr. Murray's views of the importance of osmosis in the functions of the body are well worthy of attention. It is a process which is too little considered. Whether the action of calomel and other drugs can be explained by their facilitating the osmotic process is doubtful. The suggestion is rather another form of stating the facts than an explanation of the process. But be this as it may, the therapeutical illustrations in Chapters VIII., IX., and X. are well worth the attention of practitioners. The chapters headed the Danger of Regular Habits and the chapter Starving into Health are characteristic of the bold and original look at things which a strong man takes. Neither of them will wholly please persons who like regularity of habit and accept stereotyped views of life and its functions. They must be taken together; and, so taken, will be found corrective of formalism and dogmatism in the practice of medicine, and in the guidance of individual patients. Dr. Murray has done well to lay his views before the profession.

OUR LIBRARY TABLE.

Transactions of the Association of American Physicians. Vol. V. Philadelphia. 1890.—This volume contains the proceedings of the fifth session of the Association held at Washington in May, 1890, and consists of papers of much interest and scientific value, together with accounts of the discussions raised upon them at the meeting. The subject of inflammations of the appendix and cæcum is treated by Dr. Norman Bridge, who is clearly of opinion that the vast majority of cases of "typhlitis" are due to appendicitis, and who formulates in a systematic manner the indications which call for surgical intervention. The rare condition of varicose aneurysm of the aorta and superior vena cava is described by Drs. W. Pepper and J. Crozier Griffith in a paper that reviews fully the cases hitherto recorded, and gives a useful analysis of the symptoms. Dr. Weir Mitchell writes in his attractive style upon some disorders of sleep, a subject which is further developed (especially as regards insomnia) in the next paper by Dr. Folsom. Dr. Reginald Fitz reports a case of acute pancreatitis, which he considers as being more frequent than is generally supposed. Dr. Shakespeare raises the question of prophylaxis in tuberculosis, which he declares should rest upon the three principles of—(1) destruction of the bacillus wherever it may be found outside the human body; (2) avoidance of unnecessary risk of its introduction into the organism; and (3) the improvement by personal hygiene and surroundings of the resistance of the individual to the development of the bacillus. Dr. Kinnicutt discusses the modern methods of diagnosis of diseases of the stomach, a subject also treated by Dr. Shattuck; and Dr. Graham describes two cases of acromegaly. There are other papers of interest on hysteria, migraine, and renal inadequacy.

Medicine in the Middle Ages. Extracts from "Le Moyen Age Médical" of Dr. EDMOND DUPOUY. Translated by T. C. MINOR, M.D. Cincinnati Lancet Press. 1889.—Lovers of the curious and antique in medical literature will derive some interest from this volume. The work, which contains within its moderate dimensions the results of a considerable amount of antiquarian study, is divided into four sections. That which describes the physicians of the Middle Ages, male and female, and also tells us something of their mode of practice in that period of medical knowledge, does not show the profession in great public favour. We may note in passing the account of the early life and rivalries of the French licensing faculties. A section on the Epidemics of the Middle Ages (including the plague in various forms, scurvy, leprosy, the sweating sickness of the fifteenth century, syphilis, &c.) will be appreciated by the medical historiographer. A minute and full description of the so-called "Demonomania," which perplexed the legal mind a few centuries ago, and led to the exercise of many judicial cruelties, forms the third portion of the book. The close resemblance of this neurosis to modern spiritism is discussed with care and ability. There is nothing very notable about the fourth subdivision, which deals with Medicine in the Literature of the Middle Ages, particularly as seen in French plays and in the writings of Rabelais. If some allowance be made for a certain dryness natural to the work as a digest, it will be found a readable and in its own field an instructive treatise.

A Manual of Diseases of the Nose and Throat. By PROCTER S. HUTCHINSON, M.R.C.S. London: H. K. Lewis. 1891.—There is little but praise to be said for this small handbook. It is unpretentious, concise, and free from controversy. So far as it aims it must be considered successful, though naturally in a work limited to 124 pages it is not possible to give a great amount of practical information. As an introduction to a post-graduate course it must meet a demand. Our only adverse point of criticism is that whereas one would often wish the author to speak more authoritatively, especially with regard to his own experiences as to treatment, in one or two questions of etiology still *sub judice* he writes too dogmatically. The illustrations, either drawn from life by the author or carefully selected

from other authoritative works, are all typical and admirably executed.

Archives de Neurologie. Vol. XXII., No. 65. Paris: Bureaux du Progrès Médical.—The chief item in this number of the Archives is a clinical lecture by Charcot on a case of unilateral traumatic lesion of the cord simulating syringomyelia, and it has all the interest and charm which one now expects as a matter of course from this teacher. There is also an account by Petrucci of a case of traumatism with perforation of the skull. Anatomical papers are contributed by Rossolimo and Trolard, and there are the usual reviews of legal medicine and therapeutics, and accounts of the meetings of various medical societies. It will thus be seen that the number is one of more than usual interest.

The Johns Hopkins Hospital Reports. Vol. II., No. 6. Report on Neurology, I. Baltimore: The Johns Hopkins Press.—The present number of the Johns Hopkins Hospital Reports is devoted to neurology, and contains four papers. The first describes a case of chorea insaniens, with necropsy; the second deals with acute angio-neurotic œdema; the third has for its subject hæmatomyelia; and in the last is described a curious case of cerebro-spinal syphilis. In all the cases the observations seem to have been carried out with great care, and are very complete; but it is a pity that the descriptions have been occasionally spoiled by the introduction of such barbarous and unnecessary words as "artefacts." In other respects the number is a worthy successor of others already published, and as regards typography and illustrations leaves nothing to be desired.

New Inventions.

SURGEON'S ALUMINIUM INSTRUMENT MINIATURE POCKET-CASE.

ONE of the neatest little pocket-cases in the market is undoubtedly that forwarded to us by Messrs. Allen, Hanburys, & Co. It consists of an aluminium case lined with leather, and having a centre leaf, upon which is arranged a very useful selection of instruments. There are many miniature pocket-cases in the market, but this illustrates the apparent contradiction of a small pocket-case containing instruments of the size usually found in the larger ones.

The strength of the case affords complete protection for the instruments against crushing or other damage in the pocket. The instruments have the advantage of being the firm's own make, a fact which will no doubt recommend them to many English practitioners. The aluminium case is very light, and is clean and bright in its appearance. As is well known, this metal is not injured if it should by accident be laid in any acid. Pockets are provided for silk, wire, needles, and other requirements. Filled with useful instruments, the miniature pocket-case will be much prized by the student, and be found to be exceedingly convenient and useful to the practitioner.

MEDICAL DEFENCE UNION.

AN important meeting of the Council of the East Anglian and Midland Division of the Medical Defence Union was held at Hatter-street, Bury St. Edmunds, on Friday, Sept. 25th.

Case of Covering.—Letters were read which had passed between the president, secretary, and a member of the Union in reference to an alleged case of covering; and the president and secretary were requested to take certain steps to complete the case with a view to the facts being laid before the General Medical Council.

Completion of Divisional Organisation.—After an exhaustive discussion it was resolved that Tottenham be recommended as a centre for the populous localities bordering on the London County Council District belonging to this division, and that it is advisable that these districts should be organised as a county, including therein a small portion of North London; and that the gentlemen who had written approving of this proposal shall form a provisional committee with power to elect a president, vice-presidents, &c., in a manner similar to the counties of Norfolk, Suffolk, &c.

A large number of letters had been received by the president and secretary from influential members of the profession residing in the proposed county district approving of the suggestion, and consenting to accept official positions therein. A correspondence between Dr. Cooper Rose, barrister-at-law, and the secretary having been read, it was proposed and carried that Dr. Cooper Rose be requested to act as honorary standing counsel for this division. Several letters from an eminent medical practitioner were read, together with the copy of a letter addressed by a late inmate to an official of a hospital in the division stating that two medical men had severely censured the treatment the patient had undergone in the hospital, and resolutions were adopted, authorising the president to ask for the grounds on which such statements had been made, as with the information before the council they appeared to be unfounded and unprofessional. Communications from Dr. Jones, the president for Northamptonshire, containing a draft of scheme for the better bringing the objects and uses of the Defence Union before the medical men of that county, were considered. Dr. Jones had taken great pain to induce the leading members of the profession to act as vice-presidents and on the council, and felt that if properly brought before their notice there would be a large increase in the number of members in Northamptonshire, as recently a case had occurred costing a medical man over £500, which would probably have been amicably arranged at trifling cost had he been a member of the Union. It was resolved to thank Dr. Jones for the great trouble he had taken and the valuable aid he had rendered the Union, and the president was requested to deal with the matter and give the necessary instructions for carrying out Dr. Jones' suggestions, which were considered to be eminently practical, and which it was thought might with advantage be applied to the other counties in the division.

Votes of thanks and approval of their action were unanimously given to the president and secretary, and to Dr. Scott Kilner for his kindness in entertaining the Council and placing accommodation at their disposal for the meeting.

UNINHABITABLE DWELLINGS.—The Chertsey rural sanitary authority has decided that the inspector should make during the ensuing twelve months an inspection of their district, with the object of ascertaining whether any dwelling-house is in a dangerous or insanitary condition, and to periodically report to the authority the result of such inspection.

BIRMINGHAM WATER SCHEME.—At a special meeting of the Severn Conservatory Board, held at Birmingham on the 1st inst., it was resolved to apply to the Government not to entertain any water schemes such as those proposed by the Birmingham and London corporations, which might trench upon the Severn watershed, until the whole of such schemes come before Parliament. The Birmingham Corporation have decided to acquire the water-supply from Mid Wales at a cost of from £4,000,000 to £6,000,000, and the London scheme is of even greater magnitude.

THE LANCET.

LONDON: SATURDAY, OCTOBER 10, 1891.

THE opening of the session is not a bad time for reminding our younger readers that something more is expected of medical men than a knowledge of those numerous subjects, the study of which constitutes the curriculum required of medical students. All the anatomy in QUAIN or ELLIS, and all the physiology in MICHAEL FOSTER, combined with the therapeutics of RINGER or BRUNTON, will not of themselves constitute an ideal medical practitioner. There are other books which he must study and qualities which he must possess than are implied in the study of such authors as we have mentioned. There is a book whose authority is unique and whose eloquence has no rival, to which we owe the Ten Commandments, the Sermon on the Mount, and the great eulogy on Charity, which cannot be neglected with impunity, and cannot be studied without imparting dignity to character, and even to style. There are other books which deal particularly with the ethics of the profession itself which are quite special, having reference to the exceptional conditions of human nature as affected by sickness, the delicate rights of patients, and the equally delicate rights of the medical man in regard to his relation to patients on the one hand and medical brethren on the other. The man who cannot make allowance for special conditions of the sick has no business in the medical profession. He may be strong and muscular—the more so the better,—but he must be gentle in his words and tender in his touch. Some of the strongest men are the gentlest. It can be seen equally in the way they percuss a patient and in the way they interrogate him. There is something in their gentleness which makes them great. This quality almost seems curative in the sick chamber.

> Sunt verba et voces, quibus hunc lenire dolorem
> Possis, et magnam morbi deponere partem.

The great work in which the character and duties of the medical man are discussed is that of PERCIVAL—"Medical Ethics, or a Code of Institutes and Precepts adapted to the Professional Conduct of Physicians and Surgeons,"—and students and practitioners would do well to possess themselves of it and to cultivate the sentiments and the principles which it so well expounds. But there are other ways of studying the great ethics of our profession. One of the best of these is in the study of medical biography. The life history of a man like Dr. FOTHERGILL, and his account of his friend Dr. ALEXANDER RUSSELL, read before the College of Physicians in 1769, is an inspiration to all that is high and unselfish in medical life, and teaches us how wide and yet how minute are the sympathies of true medical men. FOTHERGILL'S description of RUSSELL, who settled in Aleppo, and acquired there an enormous fame, may well be reproduced, not only as a piece of rare medical eloquence, but as a masterly portrait of medical character: "The Pacha himself became acquainted with the merit of our deceased friend, consulted him, called him his friend, found him upright, sensible, and sincere; as a man, polite without flattery; decent, but not servile; as a Christian, true to his principles; disinterested and generous as a Briton; and in point of skill as a physician superior to everyone. A natural, even cool and consistent temper, a freedom of behaviour as remote from confidence as from constraint, improved by reading and conversation; a mind imbued with just reverence to GOD, and impressed with a sense of the duty we owe; an understanding fraught with the principles of the profession to which he had been early devoted (the practice of physic), happily blended with great benevolence, was a character seldom to be met with in the Asiatic regions. This, however, was the character of our colleague."

Such characters may seem rare in every age, but they are perhaps less so than we imagine. At any rate, they constitute the type of what all medical men should be. We are plied every week with fine questions of professional behaviour and character; sometimes arising in the mind of the physician himself, sometimes emanating from a rival practitioner or a critical patient. Such questions are most times honestly enough conceived, and they would soon be generously disposed of in the lights of such a portrait as that depicted by FOTHERGILL. There are such men in every neighbourhood, "upright, sensible, sincere." The study of such characters in medical history, we repeat, is as important to every practitioner who would uphold the dignity of his profession as the study of anatomy or therapeutics. The moral element of the profession is one source of its strength. It has always been on the side of virtue and of temperance. There may have been individual exceptions, but the profession has not been involved. It has not recognised the voice of the practitioner who has seemed to sanction vice or to lessen the abhorrence of it. Vice in all its forms is easy enough without assistance or encouragement from the profession which sees so much of its results. Apart from the direct bearing of medical considerations in questions of vice and virtue, the medical man himself is a factor in the formation of public opinion. Those who would shut a medical man up in a sick room, and deny him an influence in social and public questions, injure the community. But to intervene efficiently in such questions he must intervene quietly and impartially, as a student away from the strife of parties and of sects. His influence must be rather that of an expert than a mere politician, of one who sees deeper into miseries and maladies than others do, and who cannot be satisfied with anything but true and proved remedies.

IN THE LANCET of Aug. 29th we briefly summarised the fortieth report on the district, criminal, and private lunatic asylums in Ireland. This report is in many ways an exceptional one, and fully deserves more than a mere passing notice. The returns show that the proportion of lunatics under care to the estimated population of the country has steadily risen from 249 per 100,000 (1 lunatic in every 401 persons) in 1880 to 346 per 100,000 (1 in every 289) in 1890. The inspectors not unnaturally call attention to this interesting, not to say serious, fact; and they refer, for an explanation of the relative increase, to two causes as working towards bringing about this result. In the first place,

they say their returns warrant them in the presumption that the unregistered lunatics have decreased in some proportion to the increase in the admissions to public asylums and workhouses, and that therefore the increase of insanity can to some extent be explained by "admissions to asylums from among the number of lunatics at large already existing in the country." The extent to which this explanation operates cannot, of course, be readily ascertained, for we take it that the full elucidation of this point would necessitate, among other considerations, a complicated estimate not only of the effects upon the minds of the people of the long-continued poverty of the country, but also of the influence—not a beneficial one certainly—which the intense anxieties and excitements during recent troublous times may have exerted on both men and women with naturally impulsive temperaments. The second factor referred to by the inspectors is the rapid decrease of population by emigration, and no doubt this is a very real cause of the proportional increase in the number of lunatics. Owing to the removal of healthy and strong persons by a flow of emigration going on from year to year, the present number of the insane in Ireland properly belongs, as the inspectors justly remark, to a much larger population than now exists in the country. Indeed, if in 1890 the population had equalled that of 1880, the apparent increase of insanity would have been less by as much as two-thirds; and this, roughly speaking, and taking one circumstance with another, might be regarded as an approximate estimate of the influence which emigration of population has had upon the whole relative increase, leaving one-third to be explained by other causes and conditions.

The actual number of persons of unsound mind under care on Jan. 1st, 1891, was 16,251, there being an increase of 225 as compared with the number at the commencement of the previous year. These were distributed as follows:—In district asylums, 11,488; in private asylums, 621; criminal lunatics in Dundrum, 179; in workhouses, 3961; in gaols, 2.

The inspectors direct attention to the remarkable fact that by far the larger proportion—as many as 70 per cent. in 1890—of the admissions to district asylums takes place under the Dangerous Lunatics Act, 30 & 31 Vict., cap. 118, sec. 10, by which the lunatic practically becomes a criminal, for whose detention no payment can be enforced. In Scotland the corresponding figure for the year 1889 (the last then published) was 0·2 per cent. In commenting upon this anomaly the inspectors point out that this Act is so freely made use of, "not because the patients are dangerous (for the number of really dangerous patients must be insignificant), but, first, because this order is mandatory, while under the other forms the patients may or may not be admitted, according to the will of the governors; secondly, under this form only are means provided for the conveyance of the lunatic to the asylum, as under it he becomes a criminal and is taken charge of by the police (after being arrested); and, thirdly, it alone provides for the payment of the medical officer who signs the certificate of insanity." This procedure could never have been intended. Such an abuse of legislative intention must result in grave injustice; and the sooner steps are taken to remedy it the better, for the irregular operation of an Act like this dislocates all the amenities of ordinary lunacy administration, and not only unwarrantably criminalises harmless lunatics, but also enables those responsible for their maintenance to evade their pecuniary responsibilities. All the district asylums throughout Ireland are said to be more or less overcrowded, and recommendations are made for erecting or obtaining buildings suitable for harmless and chronic lunatics. While the inspectors manifest every desire to observe due economy in the construction and furnishing of such buildings, they are none the less anxious that such proper and reasonable provision should be made in this respect as would tend to make them as comfortable and home-like as possible in their character. They must naturally feel themselves somewhat at a discount as to their asylum equipments when they state that "it must be remembered as regards the presen condition of many of the public asylums of this country that the lunatic wards of a Scotch or English workhouse are much more handsomely decorated and better furnished." We are glad, however, to see throughout the report that there is no lack of evidence that the inspectors are succeeding in "improving up" the tone and character of the asylums generally.

We fully endorse what the inspectors say with regard to the importance of out-door employment, and to the necessity for "plenty of elbow room" in the treatment of insanity. "It is the want of room and of proper employment," they say, "which explains the not infrequent use of mechanical restraint still found in some of our public asylums; whilst in several the so-called refractory class are overcrowded in dreary and cheerless airing-yards, which the experience of other countries proves to be not alone unnecessary, but injurious, and which, in our opinion, are much more likely to engender than to cure insanity."

The inspectors apparently have much work yet to do to bring the condition of the private lunatic asylums in Ireland up to a satisfactory standard; they state that many of the provisions of the Private Lunatic Asylums Act are obsolete, and that much more stringent regulations for the protection of this class of the insane are required. Among other subjects which come within the scope of the inspectors' criticism are: the necessity for middle-class asylums for the insane, paying low rates of board; asylum charities having some endowments, whose resources do not appear to have been developed for the best interests of the insane; the loose state of the law with regard to idiots and imbeciles, and the lack of provision for their care; the highly unsatisfactory condition of the accommodation and supervision in the workhouses, where as many as nearly one-fourth of the insane are under care; the claim of lunatics on the Irish Church Funds and on Government Funds, so that the overburdened taxpayer should be in some measure relieved; and, lastly, the great need for fresh lunacy legislation in Ireland.

In this programme, which is submitted to the public with many useful suggestions and recommendations, the inspectors have abundant scope for their energies for many years to come. It is not to be gainsaid that in past years much good work was done, under difficult circumstances, for the cause of lunacy in Ireland as well as for the lunatics in asylums themselves; but when the present inspectors

succeeded to office two or three years ago, much was still left for them to undertake and to do. This report, which is their second, speaks for itself, and tells us that they have every desire and intention of sparing no effort in their endeavour to bring the Irish asylums up to the level of present-day progress and requirement, so far as their means will permit. If only their efforts are seconded by the governors and medical superintendents of asylums—a well-qualified body of officials,—we feel sure that the interests of lunacy and lunatic asylums in Ireland will be administered to the best possible advantage.

WITH regard to the alleged maladministration at the Eastern Hospitals and the verdict of the Local Government Board, based on the report of two of its inspectors, who were commissioned to hold an inquiry, the public are now in a position to judge of Dr. COLLIE'S defence. At the fortnightly meeting of the Metropolitan Asylums Board, held on Oct. 3rd, a long letter was submitted by Dr. COLLIE, in which he traversed *seriatim* the charges brought against the administration of the hospital which were contained in a communication recently issued by the Local Government Board, as the central authority, to the managers of the Asylums Board. In this communication, our readers may remember, many of the allegations were admitted to have been exaggerated or to have been disproved, whereas certain matters in connexion with the working of the hospital were held to be unsatisfactory—viz., the monotony of the diet, the arrangements for disinfection, and the fact that a dance was held on one occasion in a convalescent fever ward with Dr. COLLIE'S consent. For these three matters the Local Government Board were of opinion that Dr. COLLIE must, to a great extent, be held responsible, and therefore felt that they had "no alternative but to require his resignation." These three points we have already dealt with at some length in a recent issue, and there is little to be gathered by way of supplement to our remarks by a perusal of Dr. COLLIE'S letter. Certain facts, however, in reference to the subject of disinfection, are emphasised by Dr. COLLIE, and are well worthy of attention—viz, that during the course of twenty-one years, with a large number of young and susceptible persons employed in the laundry, there had been, with three exceptions, no contraction of infectious disease by any member of the laundry staff. These three cases occurred twelve years ago, and it was very doubtful whether even their origin should with propriety be referred to the laundry. Moreover, although the clothes from the various wards had always been washed in the same laundry, yet during the whole history of the hospital no case of either scarlet fever, enteric fever, or typhus fever had arisen in a ward relegated to another disease.

This, it is true, is purely negative evidence, and as such does not, logically speaking, warrant us in drawing a positive conclusion as to the universal efficiency of the method of disinfection in dispute, but at the same time we cannot reasonably deny that there is a strong presumption as to the actual value of a system which has stood the test of practical experience through so many years, and which presumably had hitherto been deemed adequate by the local Government Board inspector. We regard this allegation in regard to the method employed in so important a subject as disinfection as by far the most serious charge in the indictment, and are of opinion that Dr. COLLIE has furnished a very practical vindication of the method which he has employed for so long a period. If, however, in view of purely theoretical considerations the practical results of twenty years' successful operation are deemed insufficient, it might reasonably be expected that some official protest would have been lodged before now by the inspector whose duty it has all along been to report on such matters, and who therefore must be held to share at least an equal responsibility. In connexion with the dietary, too, Dr. COLLIE points out that, with the exception of one item, the scale has remained the same since 1871, and that before the hospital was opened it was submitted to, and approved by, Dr. BRIDGES. The exception alluded to was the substitution of haddock for other forms of fish during Dr. COLLIE'S absence in 1885. Certain statements appearing in the Local Government Board's letter in relation to the much-talked of dance were also pointed out by Dr. COLLIE as tending to put an incorrect complexion on the affair.

Dr. COLLIE'S answer, besides dealing with the three charges which were especially coupled with his name, and which we have already discussed in a recent issue, was also directed towards those more general imputations against the management of the hospital. His reply on almost every point appears to us, after careful consideration, to be at once complete and convincing.

Dr. COLLIE concludes his letter in the following terms: "I have now gone through the allegations of the complainants as set forth in the Local Government Board's letter. I submit that, on the Local Government Board's own showing, the complaints, in so far as they are substantial, have broken down. This appears to be the Local Government Board's own view. They say: 'On a review of the whole case, many of the allegations have been exaggerations of the facts, while others have been disproved.' If, therefore, many of the allegations have been exaggerations of the facts, while others have been disproved, what remains of the allegations, and on what is the Board's verdict founded? With respect to myself personally, I conclude these observations with the following quotation from the Local Government Board's letter:—'With regard to the statements most directly impugning Dr. COLLIE'S conduct in the treatment of patients, the Board do not consider that the allegations that he did not sufficiently visit the wards were sustained by the evidence.' If the Managers desire to provide for their hospitals fresh butter, English meat, the finer kinds of fish, the very best potatoes, the whitest bread, it is for them to say so. My business is to see that the food is good, wholesome, and suitable for the patients; that they are treated according to the necessities of their cases, and with as much economy as is consistent with sound medicine. This I claim to have done."

The fact remains that as the matter stands Dr. COLLIE is deprived of his living by a decision which appears to be arbitrary. It is known that Dr. COLLIE did not for a moment realise that to these charges any weight would be attached at the inquiry, and therefore the decision came to him as an absolute surprise. Moreover, had he

also realised that the allegations were to be chiefly levelled at him personally, it is probable that he would have taken care to secure the services of counsel to assist him.

At the meeting of the Asylums Board, held on Oct. 3rd, Mr. SCOVELL, in presenting the report of the General Purposes Committee, said that it bore no reference to the statement just read from Dr. COLLIE. It recommended the Managers to inform the Local Government Board that they were gratified to learn that, according to the Board's letter, the majority of the complaints and allegations against the administration of the Eastern Hospitals were unfounded or exaggerated, especially those which had reference to the food and clothing. It was also stated that the Managers had taken into consideration certain recommendations contained in the letter from the Board following on the inquiry. It was also moved that a copy of Dr. COLLIE'S letter should be sent to the Local Government Board. On the question of Dr. COLLIE'S resignation, the chairman, Sir EDWIN GALSWORTHY, stated that they had no power to act, as the medical superintendents held office directly from the Local Government Board; that the question was one, therefore, between that Board and Dr. COLLIE.

To the exceptional nature and tried value of Dr. COLLIE'S services in the past we have before alluded, and we confidently trust that the President of the Local Government Board will pause before giving effect to a decision which, in its present form, not only means social ruin to a public servant, but is also destructive of public confidence. If the authorities would see their way to withdraw the call for Dr. COLLIE'S resignation, there is little doubt that he would be willing to place it in the hands of the Managers. But there would be this difference in his position, that he could then retire without in any degree forfeiting his claim to the pension to which his long and valuable services entitle him.

TYPHOID FEVER, like pulmonary tuberculosis, offers a tempting field to the enterprising therapeutist. Both diseases are very common, and among the heaviest items in our bills of mortality, both abound in casualties and complications that seem to invite therapeutic activity, and both have been, so far, rebellious to anything in the nature of specific treatment. As regards the therapeusis of typhoid fever, a new proposal comes to us from Königsberg. Dr. VALENTINI, assistant at the clinic of Professor LICHTHEIM, has been treating the disease by the ingestion of very large quantities of fluid, and very great and exceptional success is claimed for this procedure. Dr. VALENTINI gives typhoid patients two litres of milk, one litre of bouillon, and as much water as can be absorbed without producing disgust and repulsion. He also gives 200 grammes of sugar of milk dissolved in water, partly for its nutritive, partly for its diuretic, action. Cold baths were also freely used, and their possible efficacy must not be lost sight of in endeavouring to form a just estimate of the efficacy of Dr. VALENTINI'S methods. A marked feature in the clinical history of these cases was, as might have been expected, the presence of rather free diuresis. The amount of urine secreted was in some cases as much as two litres in twenty-four hours. Dr. VALENTINI is not disposed to attribute the good results which he claims for his method solely, or even chiefly, to its probable influence upon elimination. He rather inclines to think that it operates beneficially by restoring to the organism the fluid of which it is deprived by the febrile process. The continuous thirst and the scanty urine observable in fever patients are, according to him, the cry of nature for the free administration of water or of some simple diluent.

Various similar proposals have been made at different times in the history of medicine, all having as their aim the restoration to the organism of the fluid elements of which it had been deprived by febrile processes. Copious injections per rectum have been recommended, intravenous injections of salines have been used, especially in cholera, and there is another plan, known as the method of SAHLI, which is to inject water into the subcutaneous tissues. The rectal injections would seem to fail in the primary point aimed at—viz., the increased absorption of fluid. The plan of intravenous injections has been found to be beset with considerable dangers, and the method of SAHLI is painful, and requires the constant intervention of the physician. There remains the simplest method of all, which is now afresh pressed upon our attention by Dr. VALENTINI. We propose to offer a few criticisms upon his procedure.

We may first of all freely admit that there is something to be said in its favour. Nutriment must be given to typhoid patients in the fluid form, the free administration of diluents seems grateful to such cases, and no harm seems to come of freely satisfying the thirst of which they so commonly complain. But we are sceptical of the success of any therapeutic method which seems to proceed on the very questionable, if not wholly erroneous, assumption that the withdrawal of fluid from the organism is the cardinal feature of the febrile state. There is really no solid foundation for such an idea. The febrile state is an exceedingly complex condition, of which a heightened temperature of the body, acceleration of the pulse and respiration, diminished capacity of assimilation, and destruction of fluid in the organism, are striking features; but to treat the last point as if it alone were worthy of attention seems at least as great an error as concentrating attention upon the pyrexia, and gauging the success of our treatment by the vigour of our antipyretic measures. Again, most practical physicians who have treated large numbers of cases of typhoid fever by the administration of from three to five pints of milk daily will agree that under this treatment thirst is assuaged so as to be rarely seriously complained of. There seems little advantage in pouring in fluids beyond the point at which thirst is effectively relieved. Most observers are agreed that the typhoid patient is under the influence of a general constitutional poison which runs a fairly definite course, with characteristic developments and dangers at the various epochs, and that the aim of rational therapeutics is to husband the patient's strength, to avert or combat the various possible complications, and to await the normal subsidence of the activity of the typhoid virus. To imagine that the mere ingestion of water will achieve all these indications seems to us a proposal which has the sole merit of simplicity.

No success seems hitherto to have attended the very natural and laudable efforts to find either an antidote for

the typhoid poison or some means of "disinfecting" the bowels at the seat of the disease. Sulphurous acid, sulphocarbolate of soda, and a host of other such remedies have had virtues of this kind attributed to them, but apparently on the slenderest evidence. The best authorities, in this country at least, now treat typhoid fever with a minimum of interference. Correct dieting, milk being the staple; the control of diarrhœa, if excessive; the relief of hyperpyrexia, especially by the use of the cold bath or cold sponging; the combating of hæmorrhage, bronchial catarrh or other complication—such seem to be the generally accepted lines of treatment. In this country we use milk more freely than on the Continent, where veal tea figures much more largely than here. On the whole, the advantage seems to be with the English practice. On the other hand, we have probably lost something, as compared with our continental brethren, in our relative timidity in using the external application of cold for the reduction of temperature. Where the cold bath is objected to, cold sponging will generally be found of great value. The propriety of the use of antipyretic drugs, at all events as a routine practice, is open to great question.

If these methods of treatment are simple and unheroic, it is at least very satisfactory to note that by their adoption and intelligent application the mortality from typhoid fever in this country is being steadily reduced.

Annotations.

"Ne quid nimis."

DENSITY OF POPULATION AND MORTALITY IN TOWNS.

ONE of the most satisfactory features of the recent English census is the abundant evidence it affords of the general decline in the density of population in the older and most crowded portions of most of our large towns. It may fairly be assumed that the recent marked decline in our town death-rates is to no inconsiderable extent due to the decrease of actual population, and consequently of density, in those central districts of our towns in which the highest death-rates have always prevailed. In the central districts of London, for instance, the annual death-rate averaged 25·2 per 1000 in the ten years 1881-90, the highest rate in any of the other groups of registration districts being 23·1 in the eastern group; and in the ten years 1861-70 the rate in these central districts was 26·3 per 1000. In the face of these figures it is eminently satisfactory to note that the population of these central districts continues to decline at an increasing rate of decrease. The decrease in the ten years 1861-71 was 5·8 per cent.; it was 7·8 per cent. in 1871-81, and further rose to 9·2 per cent. in the last intercensal period 1881-90. In Liverpool the population of the entire city decreased 6·3 per cent. between 1881 and 1891; but this very inadequately represents the decline of the density of population within the central parts of the city. The population of the parish of Liverpool declined from 210,164 to 156,991, a decrease exceeding 25 per cent.; in the Howard-street subdistrict the population fell from 15,000 to 7000, and in the Dale-street subdistrict from 20,000 to 13,000. It is not easy to overestimate the gain to the sanitary condition of Liverpool from this wholesale dispersal of its hitherto congested central population. In Manchester the population of the central subdistrict showed an actual decline of more than 10 per cent.; and actual decline was also shown in the Greengate subdistrict of Salford. In the three central subdistricts of Birmingham the population declined from 146,000 in 1881 to 134,000 in 1891, showing a decrease of more than 9 per cent. In Leeds no actual decrease of population was shown in any registration subdistrict, but in the township of Leeds the subdistricts are large, and it is very probable that a decline has taken place in the central portions of the town, accounting for the large decline in the rate of increase of population in the entire township. In the west and north subdistricts of Sheffield a decrease of population in the three years was recorded, although the decline was not so marked as in many of the other large towns. In three of the central subdistricts of Bristol the population enumerated in 1891 was 9 per cent. below the number in 1881. In Hull the population in two of the central subdistricts showed an actual decline of 18 per cent. Notwithstanding the marked increase in the enumerated population of Newcastle-upon-Tyne, the number recorded in the central subdistrict of St. Nicholas declined from 10,000 to 7000, the decrease being equal to no less than 29 per cent. A similar centrifugal force is in operation in the older and central portions of most of the other large towns, especially in Sunderland, Norwich, Brighton, Portsmouth, and Nottingham. This reduced density of population in those parts of our large towns which formerly showed the most excessive death-rates must have materially contributed to the reduction of our urban rates of mortality, which has correctly been accepted as conclusive evidence of improved sanitary condition.

THE LATE MR. W. H. SMITH.

WE are in a position to give the following details concerning the fatal illness which has deprived the State of one of its most respected servants. In the course of last year Mr. Smith suffered severely from gouty eczema, and spent some time at Bourboule, and since then this affection to a great extent disappeared. Although not in good health he was able to attend to his Parliamentary duties until towards the close of last session, when (early in July) he had his first declared attack of gout. It was on his return from Hatfield on the occasion of the German Emperor's visit, however, that serious symptoms were first manifested. They commenced with a series of attacks of inflammatory effusion in the abdominal wall, which recurred for some weeks. Together with this there was marked prostration and a moderate degree of pyrexia, which persisted throughout his illness, the evening temperatures being always above the normal. The right honourable gentleman had been for a long time suffering from anæmia, and about the fifth week of his illness the spleen began to enlarge, whilst the blood showed obvious changes in its corpuscular elements. He now had frequent attacks of gout in the feet and legs, and the renal functions were occasionally disturbed. He was confined to his town house until the end of August, when he was able to be moved to Walmer. The change seemed to benefit him, but the persistence of the anæmic state caused continued anxiety on the part of his medical attendants; the blood still showed evidence of marked deterioration and the spleen remained enlarged. Whilst at Walmer Mr. Smith had a severe recurrence of gout in the extremities, but in time he became sufficiently improved to be taken for short cruises in his yacht, which he much enjoyed, and which seemed greatly to refresh him. On the night of Friday, the 2nd inst., he complained of pain in the loins, and the urine contained traces of blood; this was followed by profuse hæmaturia and enuresis. There is no foundation for the statement that this fresh accession of

symptoms was due, as has been reported, to a chill. He was much better on Monday morning, when a large quantity of uric acid was passed; but there was a return of the hæmaturia the same evening. At 7 A.M. on Tuesday (the 6th), after passing a quiet night, he was suddenly attacked with symptoms of cardiac failure, from which he rallied under the administration of stimulants. He had a second attack at 11 A.M., and another at 1.30 P.M., from which he sank, dying at 3 o'clock. Throughout his long illness he has been attended by Dr. Douglas Powell and by Dr. Wethered, who has been residing at Walmer Castle.

THE ROMAN HOSPITALS.

THESE are certainly not worthy of the capital of Italy. So little in keeping are they with the ideas and demands of the nineteenth century, that their administration has had to be entrusted to a "Regio Commissario," the Commendatore Silvestrelli. By way of enlightening the public as to the condition in which this Royal Commissioner found one of the most important of them—that of San Giacomo in the Corso—a special correspondent has just been delegated *ad hoc* by the *Tribuna*, the well-known organ to which Professor Celli communicated his impressions of the Congress of Hygiene and Demography lately summarised in THE LANCET. The first thing noticed by this correspondent was the linen used in the San Giacomo. "In the courtyard of the laundry," he says, "were stretched on clothes-lines some dozens of sheets, so coarse in material and so black that one could not say whether they had been washed or not. Those sheets, with which the hospital was liberally enough provided, might serve for making corn sacks, but not for their special destination—the beds of the patients." From the laundry the linen had to be conveyed across a number of places not conducive to their freshness or freedom from microbes. But let us follow the correspondent: "I saw the so-called *camerette* (closets) in which the cancer patients were confined. They are low-roofed, without air, without light, *indecentissimi*. The patients (females) buried alive in them will soon be transported to places less *malsani* (unwholesome)! Still worse than the *camerette* is the so-called 'Sala di pronto soccorso' (hall of immediate tendance). It is a place narrow, dim, unfurnished, with an old brick pavement in the worst condition, a place good enough at best for storing firewood, not to receive sufferers from injuries requiring the promptest treatment. In two diminutive apartments of the worst description is the dispensary, to your left as you enter from the Corso, also dim, without the necessary furniture, with two dirty old tables and two timber armchairs, historical or mediæval of aspect. This dispensary had none to manage it but a young student of medicine, who had to get what help he could from the porter, who was often drunk (*spesso ubbriaco*). The San Giacomo Hospital is deficient in articles of primary necessity, such as mattresses, and washhand basins for the surgeons. The other day it had to buy four bales of wool to prepare some mattresses for the reserve wards. The 'pharmacy' (place for making up prescriptions) is also defective. Suffice it to say that to provide 'aqua destillata' there is but one *distillatore*, a century old, and absolutely insufficient for the purpose. The scales, those of the smaller and finer description, are all covered with rust. There is no adequate assortment of phials, and the pots for unguents are of the most ordinary earthenware." Worse, however, remains to be told. "What roused my indignation most," proceeds the correspondent, "were the holes (*buchi*) where some chronic female patients were 'accommodated.' One of these has been an inmate of the San Giacomo since 1848, another since 1855. These unfortunates are kept under a staircase. Considering that they refused to die and that they were incurable, they were stowed away like superannuated furniture. It is needless to say that the Commendatore Silvestrelli will have them removed to a place where at least they can breathe a little better." The correspondent declines to speak of the waterclosets, because he would have to descend to details too disgusting (*particolari troppo nauseanti*). "Suffice it to say that for the very long 'Genga Ward' there is but one (and *that* quite other than inodorous), so that the patients are compelled to make real journeys (*veri viaggi*)." All this, however, will be remedied as soon as practicable by the Commendatore Silvestrelli. The correspondent found the bath-rooms and the kitchen less open to criticism; but as to the dietary, he has little to approve. "Che cosa date stamane di malati?" (What are you giving the patients this morning?) he asked the cook. "Faginoli ... ma a pranzo avranno il fritto" (Beans ... but at dinner they will have a fry), was the answer. The beans are white haricots. The fry is a mess of cauliflower, cock's combs, brains, and such like, familiar in the humble eating-houses of Italy—the whole washed down with the poor red wine of the country. The picture he draws of the San Giacomo Hospital is indeed a deplorable one, not to be explained (much less excused) by the plea of its resources being exhausted by the pressure put on them by the immense influx of labour from the provinces. Other hospitals, like that of the "Consolazione," are better managed, but even in it there is much that would astonish the visitor from London, Edinburgh, or Dublin. In about two years' time the International Medical Congress will meet in Rome, and her hospitals will inevitably be exposed to the inspection and criticism of clinicians from the great European schools. According to the *Tribuna*, the Royal Commissioner, the Commendatore Silvestrelli, "has his work cut out for him" if he is to make them, not indeed immaculate, but fairly presentable.

THE STRAITS SETTLEMENTS.

WE have received a copy of the Medical Report on the Civil Hospitals in the Straits Settlements for 1890 by the Principal Civil Medical Officer, Mr. Max. F. Simon. The general health had been good during the year. With the exception of an outbreak of influenza throughout the colony in the early part of 1890, there had been no prevalence of epidemic disease in the Settlements. Influenza commenced about the end of February, and ceased in the beginning of April. It prevailed most in Singapore, but appeared also in Penang and Malacca. Although cases of the disease did not terminate fatally, it was noticed that the general death-rate was much increased during the epidemic, the number of deaths for March being greater than that of any other month since June, 1888. The number of cases of small-pox reported from all the Settlements was very small. Thirty-three cases of cholera occurred in Singapore during the year, to which a limited outbreak of the disease in the lunatic asylum contributed twenty-eight. This outbreak began early in May. A patient admitted into the asylum on the 7th with acute mania and diarrhœa died of cholera on May 10th. His death was quickly followed by other cases, and in all twenty-four succumbed to the disease. No officer or attendant of the establishment suffered, although several had diarrhœa. By the end of May the disease had entirely ceased. No definite proof of the cause of the origin and spread of the disease in the asylum could be obtained. There were three cases of hydrophobia in 1890; the muzzling of dogs was enforced, and a stringent order promulgated against their importation into Singapore. Colonial Surgeon Leask, in his report on the Pauper Hospital, makes some interesting statements regarding the benefit obtained from introducing a few ounces of wheat

flour into the diet of beri-beri patients. Although there has not yet been a sufficiently extended trial of this addition to the diet, the results, so far as they have gone, have been very encouraging. From the general return of sick it would appear that the total number of cases treated in all the hospitals of the Straits Settlements during 1890 was 20,779, of whom 832 were Europeans, and 19,947 Natives. The percentage of deaths to total treated was 4·44 Europeans and 12·10 Natives.

THE NEW ROYAL WARRANT FOR OFFICERS OF THE VETERINARY DEPARTMENT.

THE Army Orders for this month publish a Royal Warrant altering the ranks of officers of the Veterinary Department. The Warrant is drawn up on the lines of that already promulgated for the Medical Staff. The substantive ranks of the officers of the Veterinary Department carry precedence and other advantages attaching to the military portion of the title, but not (except as elsewhere provided for) military command, or the presidency of courts-martial, courts of inquiry, committees, or board of survey. The substantive ranks of officers of the Veterinary Department are now Veterinary Colonel, Veterinary Lieutenant-Colonel, Veterinary Major, Veterinary Captain, and Veterinary Lieutenant. The Director-General of the Department is to hold the substantive rank of Veterinary Colonel. The rates of pay, of half and retired pay, and of gratuity on retirement are also laid down in the new Warrant.

LAPAROTOMY IN PERITONITIS.

DR. KRECKE of Munich has collected from various sources the results of laparotomy in diffuse purulent peritonitis,[1] and points out that the operation has been the means of saving many lives; for, although the statistics of peritonitis treated medically show a mortality considerably below that given by laparotomy, it is clear, as he says, that a large majority of the successful cases in the first category are such as would never be submitted to surgical treatment, many of them being referable to inflammatory lesions of the female pelvic organs, and not of an infective kind. Surgical intervention is, on the other hand, called for in cases of general infective peritonitis, such as arises from perforation or in the puerperal period, or from extension of suppuration from other parts. Dr. Krecke points out the difficulties of securing effective drainage, and is averse to irrigation, owing to the possibility of its disseminating septic material to parts of the membrane not previously infected, or of exciting hæmorrhage. He prefers rather a simple incision, drainage, and the use of iodoform gauze. Peritonitis is fatal from septicæmia, due to the absorption of poison from the cavity; but it is remarkable how tolerant the membrane may be of such virus. If the limit of this tolerance could be gauged, some guidance might be obtained as to the appropriateness of surgical interference in any case. But the fact is that there are various degrees and forms of acute peritonitis, some being fatal from septic absorption within a few hours of the onset, before even any noticeable change takes place in the membrane itself. Early operation is then called for, and consideration must also be had to the source of the inflammation. Dr. Krecke's statistics are interesting and instructive. He has collected 119 cases of laparotomy in general peritonitis, the origin of which was determined in all but 18, of which 9 were successfully treated by laparotomy and 9 died. The majority of the remaining 101 cases belonged to the category of perforation-peritonitis. Of these, 36 were cases of general peritonitis following perforation of the vermiform appendix; 12 were cases of typhoid perforation (a condition which at first sight it might seem hopeless to deal with), and these yielded 5 successes; 12 were due to perforation from gangrene and other causes implicating the bowels—of the gangrenous not one recovered, and of the 8 others only 3 were cured by the operation. No case of perforating ulcer of the stomach has yet been saved by laparotomy—a result precisely the same as that yielded by medical treatment. Of traumatic cases, 3 of punctured wounds and 1 of gunshot were recovered; but of contusions, only 3 out of 8 cases recovered from laparotomy. The measure, however, saved 5 out of 13 cases of puerperal peritonitis. Lastly, a group of cases of peritonitis from various other causes gave 3 deaths and 6 recoveries. The total result is 119 cases of general peritonitis treated by laparotomy, 51 recoveries, and 68 deaths—statistics which are certainly encouraging.

[1] Sep. Abdr. Münch. Med. Woch., 1891, Nos. 33 and 34.

DRUNKENNESS IN ENGLAND.

THE returns of the total number of convictions for drunkenness during 1890 in England and Wales have just been published. It appears that 173,036 persons were convicted for this offence. No less than 15,942 were convictions for being drunk on Sundays between 12.30 noon and midnight. In the metropolitan police district the convictions numbered 23,212. Among the counties, Lancashire heads the list with 13,154. Durham comes next with 10,773; then Yorkshire (West Riding), 9826. These are actual convictions for drunkenness, and only suggest the amount of indiscreet and injurious drinking which does not come within the purview of the police courts. Much of this comes under the notice of the members of the medical profession, whose office it is at once to detect and to conceal it—to detect it as a fruitful source of misery and disease in patients and their families, and to cover it with a mantle of professional charity. Apart from all discussions as to the refined lines which divide temperance from intemperance, the above figures must be a matter of concern to all serious persons, and especially to medical men, whose responsibilities and whose knowledge in the matter are very special.

THE DRAINAGE OF CAMBRIDGE.

AT last the Cambridge Town Council have decided to adopt a scheme for the redrainage of the town, that of Mr. Wood of Liverpool, at an approximate cost of £100,000, being accepted. We say at last, as for twenty years at least various schemes have been brought before the Cambridge Improvement Commissioners, but for some reason or other such schemes have always fallen through. It will be in the remembrance of our readers that in 1874, after the fatal outbreak of enteric fever in the town, which outbreak also severely affected one of the larger colleges, whose new buildings unfortunately were in close proximity to one of the town drains, imperative orders were issued by the Local Government Board to proceed at once with a reconstruction of the town drainage. If such an order was imperatively required seventeen years ago—and we have only to refer to the accounts published in THE LANCET at that time to prove in what a deplorably defective state the town drainage was then—how much greater must be the necessity now, considering the rapid increase of the town population and the consequent increased pressure on the already over-burdened and choked outlets. Besides which, no amount of tinkering could render efficient the old sewers, or adequately provide for their sufficient ventilation. We have so frequently heard that plans submitted have been approved by the authorities that we feel rather sceptical lest some hitch may occur with regard to the present proposal, and, till the work is actually begun, must withhold our congratulations to the University and the town. Should, however, the work ever be completed, and the scheme adopted be an adequate one, not only for present requirements, but also

with a view to the future growth of the town, Cambridge ought to become one of the healthiest cities in the country, for it has an excellent constant supply of good water, numerous open spaces, with a stream of running water, provided by the foresight and munificence of an old Cambridge citizen, which keeps the kennels of the main streets fresh and sweet, and a population, numerous no doubt, but far above the average of most towns with respect to the power of maintaining themselves. All that is wanted, then, is a system of drainage which will prevent the sewage from polluting the soil and its gases from poisoning the atmosphere.

THE HOWARD ASSOCIATION.

THE report of this Association is always interesting, and this year it derives an additional claim to attention from the fact that it closes the annual records of a quarter of a century. The causes, prevention, and treatment of crime are discussed in a series of brief but carefully written articles. Under the first heading come drink, pauperism, and the lack of effective religious or moral training, and the views of the Society on each of these subjects in their relation to crime are expressed with evident intelligence and good sense. As much may be said of the remedies proposed. The good effect of the boarding-out system in the case of destitute children is also brought out in the report. Certain references to matters of police and prison administration are noteworthy. Among these we may mention an arrangement, now in partial operation, which provides female attendants for the care of prisoners of their own sex at police stations. The increase of accommodation for prisoners awaiting trial at sessions and assize courts constitutes another ground of satisfaction. A short note on the Bertillon system of cranial measurement as a means of criminal identification is of interest to medical jurists. It is instructive to observe the views of the Society on penal treatment, and these, we learn, are best illustrated by a system of short and rigorous sentences, combined with gradual dissociation of prisoners, and followed by a period of conditional liberation. For further information as to its contents we are compelled, by limitation of space, to refer our readers to the report itself, which will be found on acquaintance not unworthy of the name it bears and the work it is intended to promote.

A CASE SIMULATING SYRINGOMYELIA.

IN the last number of the *Archives de Neurologie*, Professor Charcot has described a case which is interesting because of the resemblances which it bears to syringomyelia—resemblances which were so strong as to have induced the physician who had formerly seen the case to send it to the Salpêtrière with this diagnosis. The patient was a young man of twenty-two, who had been shot in the back of the neck four years ago. A cicatrix remained, one centimetre from the middle line at the level of the seventh cervical vertebra. He had at the time of the accident paralysis of the right arm and leg, which, however, soon passed off, and in a few weeks he was able to resume his ordinary work as a baker. Three years later, while lifting a heavy weight, he experienced sudden and severe pain between the shoulders. Next day he had slight weakness of the right leg, and the right arm and hand soon became weak, and the small muscles commenced to atrophy. An accidental injury a few months later revealed to the patient the fact that he was not sensitive to pain on the inner side of the right arm. When he came under observation there were weakness and wasting of the muscles of the right hand and forearm, analgesia, and heat over the inner side of the forearm and upper arm—parts supplied by nerves from the first dorsal—impairment of sensibility over the left side of the trunk and the left leg, and in the lower limbs weakness with exaggerated reflexes. There were also recession of the right eye and contraction of its pupil. After a most interesting discussion of the points for and against syringomyelia, the conclusion was come to that the symptoms of the case, although presenting a very strong resemblance to those of syringomyelia, were really the result of the old injury and the subsequent strain, and were dependent upon a condition at the level of the first dorsal nerves, the eye symptoms having been due to an affection of the cerebro-spinal centre. A note is added describing the condition found on operation—viz., rugosities of the laminæ—which by pressure on the nerve would account for the upper limb condition, but not for any lesion in the canal itself. The patient's condition was not materially altered after the operation.

CYCLING: ITS USE AND ABUSE.

THOSE who believe in the necessity of physical exercise, and we belong to their number, have need also to remember that even so good a thing as this is in excess an evil. The use of the cycle is a form of bodily recreation in itself doubtless wholesome; none the less is it open to the mischievous effects of undue indulgence. Tempted by the ease of movement, combined as a rule with attractive scenery, everyone tries it. Everyone too, finds he can do something with it, and considerations of weather, constitution, age, and health are apt to be dismissed with summary imprudence. One fruitful source of injury is competition. In this matter not even the strongest rider can afford to ignore his limit of endurance. The record-breaker, who sinks exhausted at his journey's end, has gone a point beyond this. The septuagenarian who tries to rival his juniors by doing and repeating his twenty or thirty miles, perhaps against time, is even less wise. Lady cyclists, too, may bear in mind that their sex is somewhat the weaker. So likewise among men the power of endurance varies greatly, and it is better for some to admit this and be moderate than to labour after the achievements of far more muscular neighbours. In short, whenever prostration beyond mere transient fatigue follows the exercise, or when digestion suffers and weight is markedly lessened, and a pastime which ought to exhilarate becomes an anxious labour, we may be sure that it is being overdone. He that would reap its best results must content himself with much less than this; but unless he can observe such moderation, he had better abstain from it altogether.

ICE CREAM DIET IN GASTRIC ULCER.

DR. HERSTEY reports in the *American Medical News* three cases of gastric ulcer in which recovery had followed the use of a diet of ice cream. This novel method of treatment was suggested to him by the experience of a patient, a woman of thirty-five, who had for three months suffered from symptoms of gastric ulcer. She had hæmatemesis and severe pain, and could retain nothing until by chance she one day took a small quantity of ice cream. She had lost 25lb. in weight. As all ordinary methods of dieting had failed, and digested food administered by the rectum was rejected, the patient at her own desire was allowed ice cream, and told to take as much of it as she could. Her severe symptoms at once began to subside, and at the end of two months, during which from one to three quarts of ice cream were taken daily, she had gained twenty-four pounds in weight. Solid nourishment was gradually added to her diet, and she made a complete recovery. Dr. Herstey had a similar experience with two other patients, in one of whom there were symptoms of perforation and local peritonitis, and he is naturally inclined to think highly of the mode of treatment

and to recommend its use in similar cases. He believes that the ice cream in those cases is beneficial because of the local anæsthetic action of the cold permitting digestion to go on without pain, while at the same time sufficient material for digestion and nourishment is supplied in the cream. But he insists that every care must be taken to ensure the absolute purity and freshness of the ice cream, and for this purpose he recommends that only that which is made at home should be used in such cases.

CONCENTRATED PREPARATIONS.

MANY years ago concentrated preparations were introduced by some of the largest and most reliable wholesale druggists, and they found very ready acceptance with all who were called upon to dispense drugs. It was claimed for them that by dilution with spirit, water, or syrup, preparations could be obtained which in no important respect differed from the tinctures, decoctions, infusions, or syrups of the British Pharmacopœia. Their convenience, when space in the dispensary is limited, is of course obvious, and this alone would readily explain the favour with which they have been received. A correspondent from South Africa indicates another great advantage to medical men resident abroad—viz, the immense saving in package, freight, duty, &c., which results from being able to order drugs in a concentrated form and dilute them on delivery. On the other hand, he confesses that he has not been free from an uneasy feeling that the preparations might not be reliable in strength or quality, and he instances two which throw down a heavy and insoluble precipitate when diluted with rectified spirit, as directed, to form the respective B. P. tinctures; while a third when diluted gives a preparation which, though clear in appearance, is very unlike the corresponding Pharmacopœia tincture. His experience is, we believe, rather exceptional. Most of such preparations which we have examined have been made apparently with a due regard to the interests both of buyer and seller, and really contain the amount of active ingredients represented. Whether they travel well is another matter, upon which we should be glad to receive information from medical men resident abroad.

DIPHTHERIA AND NOTIFICATION IN ST. PANCRAS.

THE recent marked increase in the mortality from diphtheria in the metropolis has been specially noticeable in St. Pancras. The report for 1890, recently issued by Dr. Sykes, the medical officer of health for this metropolitan district, points out that in 1888 the deaths from diphtheria in St. Pancras were 72, and that in 1889 they fell to 62, whereas in 1890 they rose to 141. These deaths from diphtheria were equal to an annual rate of 0·60 per 1000, which was very nearly double the mean rate from this disease in the whole of London. Dr. Sykes expresses the opinion, to which, however, we find it difficult to subscribe, that there was an evident connexion between the notification of infectious diseases and this increased mortality from diphtheria, because the increase was coincident with the commencement of the operation of the Infectious Diseases (Notification) Act at the end of October, 1889. Dr. Sykes suggests in support of this opinion that possibly "a proportion of deaths formerly certified as due to tonsillitis, sore-throat, or quinsy, possibly also to croup and laryngitis, may now be certified as due to diphtheria," because doubtful cases having been notified as diphtheria, the cause of death would probably be certified in the same manner. This opinion is not borne out by the figures in Dr. Sykes's report, from which it appears that in 1889, when only 62 deaths from diphtheria were recorded, the deaths attributed to laryngitis, croup, sore-throat, and quinsy were 24; while in 1890, when the deaths from diphtheria rose to 141, the deaths referred to laryngitis &c. also rose to 38, thus seeming to negative the supposed transfer under the influence of notification of cases of laryngitis &c. to diphtheria. That fatal cases of diphtheria are not unfrequently certified as laryngitis, croup, &c., is beyond doubt; but the figures for St. Pancras do not support the theory that the amount of this error is affected by notification. It is, moreover, admitted by Dr. Sykes that "notification does not appear to have had a corresponding effect upon the number of deaths from any other notifiable diseases." The recent increase of mortality from diphtheria in London and in other large towns is so marked, and is a fact of so much importance, that its attribution in St. Pancras to notification is to be regretted, as not being conducive to the solution of this serious sanitary problem.

THE POLICE AND MEDICAL AID.

IT is very necessary that every facility should be afforded for securing medical assistance in cases of street accident or illness, and this desirable result can only be attained by cordial coöperation of practitioners with municipal authorities. A recent decision by the Edinburgh Town Council is in this connexion of some practical importance. In reply to a complaint that medical men had repeatedly been refused remuneration for services rendered on such occasions on the ground that they had not been summoned by the police, it was resolved that every such attendance in future should be recognised by a printed form of application. A similar method is in use in London, where the form is usually presented soon after the attendance. This obviates the possibility of delay in an emergency, and assures official recognition of the service rendered. There are, however, certain cases in which a practitioner may have to act professionally without waiting for an official request. It is more especially at such times that his fee is apt to be forgotten. It is of course only right in the circumstances that the police should proceed in such cases with due deliberation; but it is no less clear that in order to ensure prompt aid in emergencies the service willingly rendered in any obvious case of illness or injury should be duly reported and remunerated.

THE TREATMENT OF ACUTE PURULENT EPIPHYSIAL OSTEOMYELITIS.

DR. O. THELEN has observed that in all cases of acute osteomyelitis the region of the epiphysis was the original seat of the disease. The treatment has hitherto been essentially expectant, until the formation of a periosteal abscess, which it has been the practice to incise down to the bone and then to make an opening with a perforator, removing enough of the cortical substance to expose the marrow. Dr. Thelen, however, who, as reported in the *Memorabilien*, has had during the last four years and a half fourteen cases of osteomyelitis, has operated immediately even in recent cases, when there was violent pain and much fever, without waiting for the formation of an abscess. He perforates the bone and removes the whole of the infiltrated tissue, by which means he succeeds in cutting short the morbid process more or less completely. The disease is at its initial stage frequently mistaken for typhoid fever, especially when the history of the case is obscure, the patient comatose, and the symptoms indefinite. Still more frequently acute joint inflammation is erroneously diagnosed, especially when the attack is complicated with sudden and extensive effusion into a joint. With a history of previous injury and a subacute course of the disease, doubts may be entertained whether the case may not be one of traumatic injury of the bone difficult to trace. The greatest number of cases, however, present themselves

for treatment only when the periosteal abscess has been formed. Under these circumstances the abscess must be immediately incised, the bone perforated, and all diseased tissue removed. Even here the prognosis is generally favourable. Secondary abscesses, when developing with fever, must be treated exactly like primary abscesses. In osteomyelitis at the upper epiphysis of the femur or humerus, the epiphysis is sometimes completely separated. This lesion may, however, heal if the parts are kept in the completely extended position. The author still treats osteomyelitis of the wrist and ankle with simple incisions. All treatment is, of course, hopeless in those rare and serious cases of osteomyelitis in which the infection is so virulent as to carry off the patient in about two days, before any localisation of the disease has had time to show itself.

CORONERSHIP OF THE CITY OF BIRMINGHAM.

AT a special meeting of the Birmingham City Council on the 2nd inst., on the proposal of the Mayor, Mr. Joseph Ansell was appointed temporarily to the post of coroner for the city of Birmingham, a vacancy having been created by the death of Mr. Henry Hawkes. The permanent appointment will be made by the first week of December, an arrangement which will afford the committee time to sift more thoroughly the qualifications of the aspirants to the coroner's office. Mr. Oliver Pemberton has definitely resolved to contest the vacant coronership, and as Mr. Councillor Wilders has retired in his favour, he is at present the only medical candidate for the appointment. He comes forward to vindicate the claims of the medical profession to such a post with an extensive medico-legal knowledge, and the possession of qualities which eminently fit him for properly discharging the duties of the coroner's court without fear or favour.

PUBLIC HEALTH IN NEW SOUTH WALES.

TWO interesting documents have been issued by Mr. Edmund Sager, the Secretary to the State Board of Health of New South Wales. One relates to typhoid fever, which has been so grave a source of death in Sydney and its suburbs. Indeed between 1876 and 1885 the mortality from this one cause varied between 46·07 and no less than 102·17 per 100,000. Fortunately diminution set in after this date, and the rate, though not continuously diminishing, has on the whole undergone substantial decrease, until in 1890 it was reduced to 36·6 per 100,000. To some extent this result is believed to have been brought about by a wet season, during which the street gutters, drains, and other foul places were washed out; but the new sewerage scheme and the extension of the Prospect water-supply have also had a share in it. In one case an outbreak involving fifty-nine cases was traced to neglect of a local authority in administering the Dairies' Supervision Act, and the second document referred to relates to action under this statute. The actual administration of this Act is carried out by the local authorities, but central inspectors supervise it. The need for it is convincingly set forth in the official report in question, and its extension to districts immediately beyond the metropolitan area has been decided on, both on account of the general sanitary state of these more distant dairies, and because the milk-supply for the city comes more and more from beyond the urban precincts. Somewhat recently 347 samples of water found on dairies were submitted to analysis, and no less than 155 of these turned out to be polluted and unfit for human consumption. Where infectious disease is found to prevail in dairies stringent precautions are taken. Thus, pending the removal of a patient to hospital the registration of a dairy is suspended. In another matter the colony seems to be suffering from a difficulty which we have to face ourselves. We refer to the increase of diphtheria—a matter which, as at home, is assuming somewhat serious proportions. Quite apart from the disproportion in the number of children in the city and in the suburban district, there seems to be some special influence at work in the latter area which causes a great excess of suburban diphtheria. This is to some extent attributed to the influence of emanations from tips for garbage and other refuse; but it was pointed out early this year by Dr. Thorne Thorne, in the Milroy Lectures on this subject, that ordinary sanitary circumstances can hardly be held to be accountable for the increase of this disease, since that increase has steadily and continuously gone hand in hand with progressive improvement in our national sanitary state. The influence of aggregation of children for educational purposes was, on the other hand, shown to be intimately related to the rapid spread of diphtheria in England, and it may be that this same circumstance may be in operation in New South Wales, and that differences in aggregation, whether as regards the number of children or the conditions under which they are collected together, may, in some measure, explain the different incidence of the disease in city and in suburbs. The subject is one that seems to call for further investigation, and our home experiences may possibly be useful to that end.

THE LEPROSY COMMISSION.

DR. BUCKMASTER, of St. George's Hospital, one of the members of the Leprosy Commission which has been inquiring into the subject of leprosy in India during the past ten months, has returned to London. The remaining members are also on their way home, and it is believed that the report of the Commission will be ready before the end of the year. It will of course largely deal with the questions of heredity and contagion, and the practical conclusions to which their investigations have led the commissioners.

GOVERNMENT BY GUARDIANS OR BY PARLIAMENT.

IT is high time that the British people knew whether they are to be governed by local authorities or the Imperial Parliament. We are perfectly willing for our part to let everybody that pleases have the small-pox and other preventable diseases (in spite of the Prince's wise words, "If disease is preventable, why is it not prevented?"). Nobody can gain by that arrangement but the medical profession. We say we are perfectly willing for everybody to have preventable diseases if they please—on one condition, that, after due deliberation *in Parliament*, this conclusion is reached. But we protest against Bumbledom assuming that he has authority to override Acts of Parliament, by neglecting to make appointments which the law requires to be made in order to carry out these Acts. The high health of this nation and metropolis has not been reached by the wisdom of guardians and vestries, but by the action on these bodies of Parliament, and it is treason to the constitution to allow any guardian to induce his board to play with arrangements meant to protect the community from the most deadly diseases. The Mile-end Board of Guardians contains members who, judging by reports which appear from time to time in the local press, think the board wiser than Parliament, and who wish to induce it, contrary to the plainest intimation by the clerk of the illegality of such a course, to forego the appointment of a vaccination officer. One member of the board speaks of the vaccination law as one imposed in the dark ages, and declares that medical science had said vaccination could not stand. Surely this gentleman might wait till the Royal Commission reports. If he is so sure of the support of medical science, he can

afford to let the profession down gently, and have the grace of denouncing that which has been its chief glory, and which has saved life more palpably than any other discovery. We call upon all sensible guardians to support the law. Their own authority rests on law. One of their own officers, vain of his superior intelligence, has the same right to disobey their orders as they have to disobey the law.

FLANNEL BANDAGES IN LOCOMOTOR ATAXY.

DR. LEIDY of Philadelphia has recently directed attention to the utility of a flannel bandage, firmly applied, for the relief of the shooting pains in the limbs associated with spinal disease, particularly locomotor ataxy. The use of such a means of relief was suggested to him by the benefit which he has seen derived from firm bandaging in the painful spasms which occur in the limbs after injury; and now, with six months' experience of the remedy, he recommends it strongly. He found that the firm application of a flannel bandage from the toes up to the middle third of the thigh afforded very great relief to lightning pains. In the same way, the application of a firm abdominal binder gave almost immediate relief to the distressing girdle sensation which is so common. If the bandage or binder were removed from the seat of pain it was found that the abnormal sensations recurred very soon, and Dr. Leidy is inclined to regard this simple artifice as of considerable importance. The good effects, he believes, result from the warmth of the bandage, combined with the pressure which it produces and the condition of rest which it ensures.

THE PUNISHMENT FOR DRUNKENNESS IN MEDICAL MEN IN THE UNITED STATES.

THE offence of drunkenness in a medical man is a very serious one. In olden times, if we are to believe the story books, it was by no means uncommon for men of high standing to drink deeply, and sometimes grievously to commit themselves before their patients. It may well be that the general tone of morals on this subject was so low that more forbearance was shown the practitioner than is extended to him now for a similar fault. Be that as it may, there is a very great difference in the severity with which the offence is regarded and, happily, in the rarity with which it occurs. A medical man who so plays with alcohol as to be, we will not say incapable of professional duty, but on the verge of incapacity is generally now soon detected. In many cases he himself perceives his danger, and has the good sense to absolutely part company with his enemy. If not, the process of degradation and misfortune is rapid, and, without incurring legal process or disability, he loses practice and credit. This sure fate of the medical victims of intemperance is not quick enough for the United States, where some unusual legislation has lately taken place. In the State of Georgia, according to the *New York Medical Record*, a statute has been passed by the Legislature which disqualifies for further practice any medical man who has once been convicted of drunkenness, and imposes a heavy penalty on him if he attempts to practise again. In New York there is a statute to the same effect, but more mild and discriminating in its spirit. It runs as follows: "A physician or surgeon, or person practising as such, who, being in a state of intoxication, administers any poison, drug, or medicine, or does any other act as a physician or surgeon to another person, by which the life of the latter is endangered or his health is seriously affected, is guilty of a misdemeanour." Another section declares that, if under like circumstances the patient's death results, the physician is guilty of manslaughter. We cannot defend the severity of the Georgian law, and our contemporary regards it as a deliberate insult to the practitioners of the State. A vice that has been so common, and withal so leniently regarded by mankind, is surely not to be treated, in a first conviction, so severely. The case is different where the vice is persisted in. Georgia is a State where there is almost an equal number of black and white citizens. It may either be that the vice is more common, or the belief in severe measures greater, than in other populations. In any case, while drunkenness is a vice to be discouraged, and even punished, by those that exercise discipline in the great profession of medicine, it is indefensible in a Legislature for one conviction to deprive a man of his professional status. The proper remedy for the State to adopt would be to reduce the number of competing medical schools which hold loosely the gates of the profession and which let in those who are unworthy, and out of this reduced number to constitute a Board who should have power to judge of the efficiency of schools and to exercise discipline over all admitted to the profession. A medical man who frequently gets drunk brings his profession into discredit, and his profession should have the right of judging him.

THE DEATH OF MR. PARNELL.

AS various rumours have been put in circulation in reference to the sudden termination of the illness of Mr. Parnell, it may be well to indicate the salient points concerned in the fatal issue of the malady to which Mr. Parnell has so speedily succumbed. The subject of rheumatic fever accompanied with hyperpyrexia (above 106° F.) received striking elucidation in the classical work thereon by the late Dr. Wilson Fox. Cases of this kind, which are not uncommon, rapidly terminate fatally (unless the fever can be reduced) in consequence of failure of the heart's action, delirium, and coma. It would seem from the experience of some observers that should the rheumatic fever follow circumstances involving great nervous strain, this complication is more likely to ensue. Death in these cases is not necessarily the result of pericarditis or endocarditis, but seems to be rather due to some special action of the nerve centres regulating the production of heat.

SHOCK FROM AN ELECTRIC LIGHT WIRE.

IN the *Boston Medical and Surgical Journal* a case is recorded illustrating one of the dangers incurred in America in connexion with electric lighting. The case is described by Dr. F. W. Jackson, and was that of a young, strong man, aged twenty-two. While driving along a street his horse's feet became entangled in an electric light wire which had broken away from its pole connexion. The horse finally extricated himself, removing, however, in the course of doing so, some of the insulating material. It is supposed that the patient, in his attempts to remove the wire, probably seized it at one of the unprotected points, and he was immediately thrown a distance of ten feet against the curbstone and back again into the middle of the street. He then swayed backwards and forwards several times, when from some unknown cause the current suddenly broke, and he fell to the ground unconscious. He remained in this state for ten minutes, when he partially regained consciousness. When he was first seen by Dr. Jackson, about two hours after the accident, his pulse was 100, strong and bounding, temperature 100°, his pupils were dilated, he was nervous and irritable, and his reflexes are said to have been increased. He also suffered from severe headache. The anterior surfaces of both hands and arms were blackened from the tips of the fingers to a point midway between the wrists and elbows, and were very sensitive to touch. Another curious phenomenon was that the muscles would violently contract on the least irritation—a condition of things which disappeared on the second day. He suffered from severe headache accompanied by sleepless-

ness, but after treatment by rest and bromide of potassium for three days he was able to resume his work, apparently none the worse for his curious experience.

A CASE OF HYDROPHOBIA.

A STRONGLY BUILT man, aged forty-six, was admitted to St. Thomas's Hospital, under the care of Dr. John Harley, between 9 and 10 A.M. on Sept. 26th. He was complaining of pain in the chest referred to the lower ribs on both sides, and of difficulty in breathing. Respiration was very rapid, and he seemed in a state of intense mental anxiety. He stated that he had been in this condition for two days, and was getting worse. There were no physical signs of disease. In the evening it was found that any attempt at drinking caused a spasm, the man clutching at his throat as if choking; a similar effect was produced by a draught of air. At midnight he was quite rational, but still in the same state of terrible anxiety. He then said that his first symptoms commenced on the morning of the 22nd, when he found himself unable to swallow a glass of beer. At 6 A.M. of the 27th he became suddenly delirious and violent, remaining in that condition until his death at 10 A.M., which was apparently due to asphyxia. The pulse on admission was 97, and never became rapid. His temperature varied between 100° and 101·8°. There was no trustworthy history of a bite, and no scar like that left by a bite was seen. He was said to have been bitten by a dog six months before, but he said himself that he had been bitten eight or nine years ago by a dog, and a few months since by a rat.

THE CORONER'S INQUEST.

THE very unpleasant discussion which has recently arisen out of an inquest held at Westminster on the body of an actress who committed suicide has brought into fresh prominence the question, always lurking just below the surface, as to what is the proper way in which to conduct a coroner's inquest—in public or in private. The practice of modern times has unmistakably indicated a public inquiry as better than a private one, and a careful review of the facts of the case leads, we think, to the same conclusion. The old theory was that the coroner's inquiry should be conducted as privately as possible in order that the minds of persons who might afterwards have to act as jurors in a judicial inquiry concerning the death might not be biased by *ex parte* statements made in the coroner's court. Such a theory was tenable at a time when the judges were prepared to treat the reporting of the proceedings before the coroner as a criminal offence. So much can be said in its favour; but that more can so be said we doubt, for at the present day any such doctrine is indisputably antiquated. Every day the morning newspaper reports one or more inquests, and indeed many systematically devote a column to such reports. The consequence is that when by any chance an inquest in which the public take an interest is not reported, suspicions are at once aroused, the mythopœic faculty is called into vigorous exercise, and a state of popular excitement is occasioned more destructive of serenity of judgment than any possible prepossession occasioned by a premature disclosure of important or unimportant evidence. Facts can be suppressed, but discussion cannot; and if discussion is to take place at all, it is for every purpose better that it should proceed upon a basis of fact rather than on a footing of conjecture. For these reasons we think the position should be frankly accepted by coroners that the coroner's inquest is to be an inquiry conducted in the light of day. Unhappily, the action of a coroner now and again who, in what he conceives to be the interests which he ought to consult, consents to hold an inquest with closed doors, affords the public ground for suspicion in a case where any concealment has been practised, even though the fact be only that some newspaper reporter has failed to do his duty. Thus Mr. Troutbeck has now made it clear that the mystery which has been woven about the story of an unhappy girl's fate was none of his spinning, but he has not succeeded in wholly allaying the suspicions which at first found foothold in the mistaken assumption that he had thrown some difficulty in the way of the publication of the evidence given before him. We would remind our readers that the late Mr. Wakley, when coroner for Middlesex, always held his court with open doors, and favoured the presence of reporters of the public press.

THE MEDICAL SOCIETY OF LONDON.

THE Lettsomian Lectures will be delivered on Jan. 4th, 18th, and Feb. 1st, 1892, by Professor William Rose, F.R.C.S. The subject of Lectures I. and II. will be the "Surgical Treatment of Trifacial Neuralgia"; that of Lecture III.: "Appendicitis; its Symptoms, Pathology, and Treatment." The Annual Oration will be delivered by Sir James Crichton Browne, M.D., F.R.S., on May 2nd.

THE PUBLIC HEALTH MEDICAL SOCIETY.

THIS Society has issued an account of the five years public health work in which it has been engaged. One of the most important results obtained by the Society has been the registration of medical men possessing sanitary science certificates, and the subsequent privilege accorded to those holding these certificates, under the Local Government Act, 1888, was also in large measure due to a movement set on foot by the Society. The action of the Society has also extended to Scotland—indeed, it seems remarkably vigilant in respect of all legislation relating to health within the United Kingdom, and its influence may be considered as tending to the maintenance of a high standard of efficiency in regard to all diplomas in public health.

RAILWAY SERVANTS' HOURS OF LABOUR.

THE Parliamentary Committee which was appointed to consider the question of restricting by legislation the hours of labour of railway servants has reported the evidence collected, and carried over the report of its conclusions until the next session of Parliament. The evidence shows, as it would be expected to show, that the question with which the committee has to deal is one of great difficulty; it shows also, and unmistakably, that the question is one of great urgency. Thus the number of instances collected by the Board of Trade in which railway servants are shown to have been worked for upwards of twelve hours at a stretch is upwards of 50,000. This large number of instances has, we presume, been derived from the comparatively small number of returns, covering no long period in the aggregate, which have from time to time been called for during the past four years by the Board. It must be taken therefore to represent a vast amount of such prolonged labour, and upon more minute examination it will turn out to be a collection of instances not only of prolonged but also of excessive toil. Thus nearly 20,000 of these 50,000 instances are cases in which the hours of labour exceeded fifteen, and in about 3000 the period was protracted beyond eighteen hours. Even this statistical statement does not afford the most striking illustration which the evidence affords of the undue pressure which the existing railway system puts from time to time upon the men. It is in extreme cases, such as that of the guard, whose average working time for a month was fifteen hours and fifty-four minutes a day; or the engine-driver, who in four days

worked three shifts of twenty-three hours, twenty hours and three-quarters, and twenty-three hours respectively. Not less noteworthy is the case of a fireman, who on two successive days worked shifts of twenty-four hours and fifty minutes and twenty-one hours and ten minutes respectively. These cases, though exceptional in the sense of being extreme, are yet typical in the sense of being due to no breakdown of the system but only to its exigencies, and they show beyond dispute that there is a great mischief to be cured. Any system of apportioning work which leads to such results stands self-condemned. If those who demand relief from these conditions cannot obtain it otherwise than by legislation, they have indeed a strong case to lay before the Legislature. We shall await with much interest the conclusions of the Committee, for plain as it is that the regulation of such a matter of detail as the hours of labour in a particular trade is a singularly unfit subject for legislative interference, it is even more plain that the evil which the railway companies have suffered to grow up in their administration cannot be permitted to continue unredressed.

ACCIDENTS AT WILD-BEAST SHOWS.

WITHOUT at all desiring to limit unduly the exhibition of human will power in the brute world, or even to baulk the whims of a curious public, we are often compelled to question the policy of permitting such exhibitions in wild-beast shows. Only the other day a luckless though skilled performer was attacked for the fifth time in his life and nearly killed by a lion in a menagerie. Surely we should lose nothing by the prohibition of such representations. Lion performances have been repeated *ad nauseam*. They teach little or nothing, they exhibit no great variety, and they are carried out in constant dependence on the capricious moods of a captive beast. We can hardly see how, in the face of many disastrous experiences, even the initiated can defend the safety of these proceedings by any rational argument. Uncertainty is their essential feature, and the consequent risk is such as cannot be reckoned with, and is therefore unjustifiable. The tamer transformed surely need not miss a livelihood; the menagerie without him should never be too tame. Why, then, should the dangerous and brutal absurdity continue?

STAINES SEWAGE AND THAMES POLLUTION.

OWING to formal complaint that the Staines Local Board of Health had failed to provide their district with proper sewers, Mr. S. J. Smith, C.E., of the Local Government Board, has held an inquiry into the alleged default. The evidence was much what might have been anticipated. Staines has no proper sewers; it has a system of cesspools, mainly leaking ones, which Dr. Alfred Ashby could only describe as a "rotten" system; a number of these cesspools empty into a ditch, which is fitted with sluices by the local board, so that they may hold back the water and then flush the contents bodily into the Thames, and this notwithstanding the representations of the Thames Conservators; and nothing but plans and talking have resulted from the consideration hitherto given to the subject. On the other hand, the Local Board of Health declare the town to be healthy, and the drawback to a proper system of sewerage to be one of serious expense. This much might have been expected; but, as a matter of fact, the question of the healthiness of the befoulers of the Thames was hardly in question. But one phase of the inquiry will hardly have been anticipated. One member of the present Government, the President of the Local Government Board, orders the inquiry into the question of the default of Staines, and at that very inquiry another member—namely, the Solicitor-General—appears through a friend, whom, according to the *Surrey Advertiser*, he urges in writing "to make a strong protest against an immense expenditure being forced upon the town to remedy a partial mischief arising in a great measure from individual defect." What the "partial mischief" is we fail to understand, unless the writer means that the pollution of the London drinking water by the sewage sluices of Staines does not transform all the water into sewage; and the term "individual defect" is equally happy in conveying no definite meaning to those who know that, since there are no proper sewers, individual householders are practically compelled to deal with their sewage either by polluting the soil of Staines or by polluting the Thames. It remains to be seen how Mr. Ritchie will deal with the question.

FOREIGN UNIVERSITY INTELLIGENCE.

Gothenberg.—A new University, endowed entirely from private sources, has just been opened. This will be the only Swedish University unconnected with the State.

Jena.—Dr. O. L. Binswanger has been promoted to the newly created chair of Mental Diseases.

Kiel.—Dr. Gustav Edlefsen, Extraordinary Professor and Director of the Policlinic, has announced his intention of retiring, and has already left the neighbourhood.

Marburg.—Professor Carl Fraenkel, of Königsberg, has accepted an invitation to the chair of Hygiene in succession to Professor Rubner.

Prague.—German University: Dr. Rosthorn, of Vienna, has been appointed temporarily to the charge of the Gynæcological and Obstetric Clinic. Bohemian University: Dr. F. Pecirka has been recognised as *privat docent* in Dermatology.

Tomsk.—Dr. Repreff, of St. Petersburg, has been appointed to an Extraordinary Professorship of General Pathology.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Siegmund Theodor Stein of Frankfort, who is well known by his papers in connexion with photography and electricity in their relation to medicine. His chief work is entitled "Light in the Service of Scientific Research."—Dr. Rottenbiller, of the Lunatic Asylum at Engelsfeld, in Bavaria.—Dr. Alexandroff, Prosector of Anatomy in Kazan.—Dr. N. Kowalewski, Emeritus Professor of Physiology in Kazan.

IT is announced, in the last number of the *Revue d'Hygiène*, that an International Sanitary Conference has been arranged, on the initiative of the Austro-Hungarian Government, for determining certain questions, amongst which the passage of the Suez Canal "en quarantaine" will be prominent. The Conference is to meet shortly at Venice.

THE first Hunterian Lecture of the Hunterian Society will be delivered on Oct. 14th at 8.30 P.M., by Mr. Hutchinson, LL.D., F.R.S., "On the Laws of Partnership in Disease." It is a new departure that these Hunterian lectures are to be free to all members of the medical profession.

THE first meeting of the King's College Medical Society for the present session will be held on Monday, the 19th inst., at 8 P.M., in the Marsden Library, when Mr. Henry Smith, F.R.C.S., will deliver an address on "Reminiscences of King's College."

DR. S. MONCKTON COPEMAN has been appointed one of the medical inspectors of the Local Government Board, in succession to Dr. F. H. Blaxall, who has retired owing to ill-health.

Pharmacology and Therapeutics.

BROMOL.

BROMOL, which was introduced into therapeutics by Dr. Rademaker, is a chemical compound, tribromophenol, and is obtained as a white flocculent and gradually crystallising sediment when bromine water is added to an aqueous solution of carbolic acid. Pure tribromophenol occurs as a white crystalline substance which melts at a temperature of 203° F., and is nearly insoluble in water, but readily so in alcohol, ether, chloroform, glycerine, and in fatty and ethereal oils; the odour is disagreeable, like that of bromine; the taste is sweet and astringent. According to some experiments previously published by Grimm, the antiseptic virtues of bromol would seem to rival those of carbolic acid. When it is applied to recent wounds it causes a sensation of burning and has a caustic action; it stimulates atonic granulations, and produces a favourable effect on tuberculous processes. In gangrene it acts as a powerful disinfectant, and accelerates the separation of dead matter. Dr. Grimm applied it to wounds either in a pure state or mixed with some indifferent powder, and as an ointment. He also employed it to impregnate bandages. He considered it inapplicable to the mucous membrane of the mouth, nose, and pharynx on account of its caustic properties. Dr. Rademaker uses bromol either in substance or in solution of olive oil of the strength of 1 in 30, or as an ointment of the strength of 1 in 10. In diphtheria he brushes the membrane with a glycerine solution of the strength of 1 in 25. As tribromophenol remains undissolved by the gastric juice and is only slowly acted upon during its passage through the intestinal canal, Dr. Grimm made use of it as a disinfectant of the bowel, giving it in doses of from three to seven and a half grains per diem. Dr. Rademaker also has administered it in cholera infantum in doses of from five to fifteen milligrammes, and has prescribed it in typhoid fever. It is secreted by the kidneys in the form of tribromophenol-sulphonic acid.

IODIDE OF POTASSIUM IN THE TREATMENT OF DEEP WOUNDS.

Dr. Schleich has administered iodide of potassium in ninety-two cases of wounds of considerable extent or depth affecting both the bones and the soft parts, including operation cases. The progress of each wound was noted for several days before administering the iodide of potassium, as well as during the period of its administration and for a few days afterwards. The cases were mostly those where the granulation process was slow, but during the administration of iodide of potassium in five-and-a-half grain doses three times a day the surface of wounds, which had been smooth, of a dirty gray colour, and partially covered with fibrine, changed in four days to a healthy red colour, appearing granular and vascular; the circulation improved, and the secretion, which had previously been very scanty, increased. In other cases, which had all along presented plenty of granulation tissue, the time occupied in the healing of the wound appeared to be shortened by the drug. When the doses were considerably increased, the secretion became profuse and the granulations excessive, very spongy, and wanting in vascularity. He concludes from his observations that iodide of potassium possesses the property of increasing the activity of leucocytes in places where the circulation has been disturbed by wounds. In this manner may also, perhaps, be explained the absorption of effusions and the disappearance of such new formations as gummata, which are apt to be affected by fatty degeneration.

SALICYLATES IN PLEURISY.

The *Pester Medicinische Chirurgische Presse* publishes a case of serous pleuritic effusion, reported by Dr. Sigmund Déri, health officer of Kenderes, which has some especially interesting features. The effusion was absorbed by means of a remedy which had been administered for the treatment of a complication of the original disease. An agriculturist, twenty-nine years of age, caught cold, and the next day he had a rigor and pain in the right side. Dr. Déri, having been sent for during the seventh week of the disease, found severe bronchial catarrh and an effusion into the right pleura. After a week's treatment the catarrh decreased, the fever disappeared, and he then treated the effusion by iodides and diuretics, but without any success. An operation was being thought of, when an accident caused the treatment to be changed with unexpected success. The patient had during the twelfth week of the disease, on a mild February day, been sitting in the open air, and contracted acute rheumatism. Dr. Déri administered salicylate of soda, which produced considerable diaphoresis, and on the fifth day of the disease all rheumatic symptoms had nearly disappeared, and on percussing the chest the respiration over the seat of the effusion was audible to a surprising degree. The patient continued the salicylate of soda for another four days, and the effusion was completely absorbed. This case occurred in the beginning of 1885, and Dr. Déri has prescribed salicylates in several cases since with good success. Having given the history of the first case, the question was discussed by what means the same remedy acted beneficially on both diseases at the same time. Does a connexion exist between the two affections, or was the complication accidental? Is the effusion absorbed by means of the diaphoretic effect of the salicylate of soda, or does the latter act as in rheumatism? Does the drug act beneficially in the acute stage of the effusion also, or only later on? Does the treatment prevent a relapse? To answer all these questions Dr. Déri had to collect statistics, the results of which he gives. Until the year 1890 nine cases of extensive serous effusion after pleurisy were treated, but none of them presented a similar complication to the first. Therapeutically, the author comes to the conclusion that, although the salicylate of soda acts in most cases as a powerful diaphoretic, it is not in this capacity it causes absorption of the effusion, but by some specific virtue similar to that it exerts against rheumatism. As long as inflammatory symptoms existed—that is, in the initial stage of the disease—the salicylate of soda had only a very trifling effect, if any; but during the third or fourth week he invariably observed its beneficial effect. Tuberculosis of the lungs and, in a higher degree, of the intestinal canal, as well as dislocation of the heart, contraindicate the administration of the drug. Debilitated patients bear even large doses well, and Dr. Déri never observed unpleasant symptoms of the heart or stomach. No case of relapse was observed. He draws the following conclusions from his observations: Chronic serous effusions into the pleura are often absorbed by the administration of salicylate of soda. Salicylate of soda has in pleurisy with effusion a powerfully diaphoretic and probably also a specific effect. The freedom from secondary attacks, procured by the administration of salicylate of soda, does away with the urgency of operative interference with serous effusions into the pleura, and even relegates the consideration of such interference quite into the background.

HYOSCINE.

Dr. Sighicelli[1] has employed this drug in the form of the hydriodate. The dose used was a quarter to one milligramme subcutaneously. He is of opinion that one milligramme is the maximum dose that can be given with safety, and this quantity should be arrived at gradually. He considers the drug quite unsafe in the case of patients with cardiac troubles, as he finds it slows the pulse, lowers the arterial tension, and may produce paralysis of the heart. Dr. Serger,[2] who used sulphate of hyoscine, found that it produced complete muscular relaxation, violent vertigo, inability to speak or to stand—in short, so much prostration and distress that it had to be discontinued. Such are, no doubt, the symptoms produced by a large dose of hyoscine, but it is certainly unusual to get such effects from the ordinary medicinal dose.

DUBOISIN AS A SEDATIVE AND HYPNOTIC.

Dr. Ostermayer[3] regards the sulphate of duboisin as superior to hyoscine in not having the inconveniences of the latter drug. It is chiefly a hypnotic, producing sleep in from twenty to thirty minutes, and is to be given in doses varying from one to three milligrammes, according to the character of the case. It is said to produce no dangerous or disagreeable symptoms, and although continuous use produces tolerance, by leaving it off for a short time the full effect can be again obtained.

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[1] Quoted in Arch. de Neurolog., No. 65.
[2] Ibid.
[3] Allg. Zeitschr. für Psych., xlvii., 3 and 4.

Abstracts
OF
INTRODUCTORY ADDRESSES
DELIVERED AT THE
PROVINCIAL HOSPITAL MEDICAL SCHOOLS
AT THE
Opening of the Session 1891-92.

YORKSHIRE COLLEGE MEDICAL DEPARTMENT.

ADDRESS BY SIR J. CRICHTON BROWNE.

THE opening of the ensuing winter session of the Medical Department of the Yorkshire College, being the sixty-first session of the Leeds School of Medicine, was signalised on Oct. 1st by the delivery of an address by Sir James Crichton Browne, LL.D., M.D., F.R.S., Lord Chancellor's Visitor in Lunacy, who was in the evening entertained to dinner at the Queen's Hotel by the medical profession of the district. For the purpose of hearing the address, a numerous audience came together in the chemistry lecture theatre at the College.

Sir J. CRICHTON BROWNE, after briefly referring to the pleasure it afforded him to have been able to accede to the invitation of the teaching staff of the medical department of the College, proceeded to deal with various questions of immediate interest to the medical profession. One was, he said, often told nowadays, and truly told, that the medical profession in this country was overstocked, and that the struggle for existence among its members was growing in keenness and severity, and that they should be cautious therefore in holding out inducements which might tend to swell the crowd that was pressing into it. But he was speaking now to those who had already joined that crowd and committed themselves to a medical career, and to them he could unhesitatingly offer his congratulations on the choice of a calling which, with all its drawbacks, was singularly interesting and attractive, and conferred an exceeding great reward, not rank or riches or vulgar notoriety, but enlightenment and usefulness, and the consciousness of good work well done in the service of man, on all who with natural aptitude diligently sought it. But natural aptitude and diligence were alike necessary in order that the medical and indeed any profession might be followed with success, and most of the failures in life which one saw were due to the lack of one or other of these. It was the absence of natural aptitude that was, perhaps, oftenest at the root of the evil, for diligence could scarcely be expected in those who had somehow been set to a work for which they had neither heart nor talent, and against which they might even feel a deep-rooted repugnance. In eight cases out of ten a boy's profession, he felt sure, was chosen in a haphazard way, with an eye to some supposed opportunity, and not with regard to the boy's constitutional endowments; and the consequence was that there was much waste of time and energy, much scamped work, much discontent, and sometimes deplorable deterioration of character. In reviewing the case of a notorious criminal who had been executed in Canada last year, Professor Goldwin Smith had said that had Birchell been 'kept steadily at work at some manual occupation he might have gone decently, perhaps creditably, through the world. The mistake which sealed his doom was sending him to college, where, having no literary tastes, he was sure not to study, and where, being idle, he was sure to fall into dissipated habits, and the depravity to which such habits inevitably lead. It was properly the function of the father, whose knowledge of his son's temperament and abilities ought to be of the most complete and intimate kind, to guide the son's steps into that walk of life in which he was likely to travel most profitably; but parental duties in these modern days were to a large extent performed by deputy, by nurses, by governesses and tutors, and it not seldom happened that, when the time arrived to start the son upon his independent journey, the father discovered that he was wholly ignorant of his gifts and attainments, or had formed a very erroneous conception of them. "What shall we do with our boys?" was a question asked in innumerable households, and which often arose out of inability to say what these boys were fit for. Could efficient assistance be given to parents in choosing professions for their sons, not by empirics, like the practical phrenologists who were sometimes, he was told, consulted on this subject, and who founded their advice upon the observation of the supposititious organs in which they had located their fictitious faculties, but by skilled men and scholars capable of estimating physical as well as mental potentialities, then much suffering would be avoided and good accomplished. A brain-conditioning house, therefore—an establishment standing between preliminary and professional education in which the former might be proved, while the latter was approached by scientific methods in which the staple of intellect would be determined, and traits of character, good and bad, accurately appraised, and in which due regard would be given to those latent pathological tendencies which really formed an integral part of the personal identity of everyone—a brain-conditioning house of this kind was not a mere whimsical suggestion, but a practical want of the age, needed to meet the requirement of the large class of cases, and if established would soon encroach on the trade of the indiscriminate and brain-destroying crammer. Such brain-conditioning house, however, was less necessary in relation to the medical profession than to any other, for an immense majority of those who adopted it possessed, he believed, a special aptitude for it. In Leeds, so long distinguished for its great medical families, it could be scarcely necessary to remind them that the principle of hereditary succession ruled to some extent in medicine, and that in a great number of instances father had been succeeded in it by son for several generations. But hereditary succession of this kind generally involved some degree of hereditary predisposition, and they might depend upon it that when a medical father had several sons he was shrewd in selecting for his own calling the one best suited for it. And where no hereditary predisposition could be traced, special aptitude might still be inferred in those who devoted themselves to the medical profession, for that profession held out no gaudy allurements to the young, it promised neither wealth nor high social distinction, nor luxurious ease, and demanded studies that were laborious and in some aspects repellant; and they might feel sure, therefore, that most of those who sought admission to it were moved by a genuine love of natural knowledge, and by a sincere, if unparaded, desire to do something to mitigate the sufferings of their fellow-men. The fact that those who entered medicine had almost invariably some original leaning towards it accounted partly for the deep attachment to their profession, notwithstanding the heavy calls it made upon them, felt by almost all medical practitioners. He could assure those who were there to dedicate themselves to medicine that they would never regret their choice, if that choice had in any degree been prompted by natural aptitude. Besides natural aptitude, steady diligence was essential in those who would successfully pursue the study of medicine and learn to solve the complicated problems of disease and to command the manifold resources of the healing art. And as time went on the need for diligence on the part of the student of medicine became more and more pressing, for new methods of investigation were being constantly devised, and new remedies introduced. In order to obtain a qualification to-day a student of medicine must not only be expert in all the old means of physical diagnosis, but must possess an accurate acquaintance with the chemistry of the secretions, which was unattainable in former days; he must be familiar with the microscopic appearances of the tissues in health and disease which modern research had revealed, and he must be an expert in the use of instruments that were quite recent inventions, and of electrical apparatus which was hourly undergoing improvements.

A subject he would like to say a few words about on that occasion was that of old age. Although at first sight it might seem of little immediate concern to them, still in the hey-day of youth, the subject was one well worthy of consideration, for it ought to be one of their great aims in life to grow old themselves, and to be the cause of old age in others. The popular impression assuredly was that it was well with old age in these days. Paragraphs that appeared in the newspapers now and again pointing out that a dozen old people whose deaths were recorded on a particular day had collectively beaten the record of Methuselah, and the striking decline in the death-rate in England and Wales that had been going on steadily

and progressively for the last thirty years—had created a belief, fostered by those genial optimists the statistical Mark Tapleys, whom we had always with us—that we were advancing towards health and longevity all along the line. The reduction of the death-rate in this country was an undisputed fact. What was often overlooked, however, was the fact that this saving of life had been effected mainly in the first half of it—that it was among infants, children, and young persons that the huge reduction in the death-rate had taken place, whilst among persons past middle life the reduction had been comparatively trifling. It was worthy of note that women, who had not yet to bear the brunt of competition as much as men, reached advanced ages in far larger proportion than men did. In regard to the ills that old age was subjected to, senile insanity, due to atrophy of the brain, or exaggerated dotage, was, he felt sure, far more common than it once was, and declared itself on the average at an earlier age than it used to do; and he knew few more gloomy experiences than to visit our mammoth metropolitan asylums and, wandering amongst the masses of human wreckage there heaped up, to notice the numbers of prematurely old men and women. Suicides, too, were increasing at all ages, rising in England and Wales from 1340 in 1864 to 2308 in 1888; but it was after forty-five years of age that the vast majority of them occurred, and it was between forty-five and sixty-five that they were increasing most rapidly. His belief was that mild senile melancholia, a state of mental depression falling short of madness, but still morbid enough, occurring at the turning-point of life or soon after, was a lamentably common complaint, often concealed, but sometimes accidentally discovered and revealed far more frequently to the general practitioner than to the specialist. Proceeding to inquire what old age really is, and whether it is inevitable to long-livers, Sir James Crichton Browne pointed out that there are three great epochs in human life—one of growth, one of equilibrium, and one of decline, the last of these three, strictly speaking, constituting old age—the old age which is inevitable, but which as regards its duration and characteristics is something very different from what is generally understood by the term. There are, he explained, many features, mostly of a distressing character, which are prominent in the pictures of old age that we form in our mind's eye, and which indeed are in constant association with old age as we see it around us. They betoken pathological changes which occur at an advanced period of life, but they are in no way essentially connected with the normal decay of man's powers. It is of course in the autumn of life that wild oats come to fruition, and a whole host of ailments, debilities, incapabilities, and disorders undoubtedly attend and embitter old age as we are familiar with it. A large proportion of these, however, are in it, but not of it, and the old age that is inevitable is by no means so objectionable a state as that which is prevalent. Old age might run its course to the century goal without being complicated by any of the various senile infirmities which he named, and to think of it thus stripped of adventitious misfortunes was to recognise it as a less formidable and deplorable phase of existence than we had been accustomed to suppose it to be. In some detail Sir James demonstrated that in the higher nervous centres evolution goes on late in life, and that even in what is called old age the freshness of youth may sometimes survive. It was true, he said, that we died daily, and it was equally true that we were daily born again. Old age began in the cradle, and youth still lingered on beneath snowy locks. He also showed that the natural evolution of the nerve centres is largely interfered with by habits of life and methods of work, and that retrogression was prematurely induced and old age abbreviated and so wasted by infirmities that it is regarded with apprehension instead of quietude and contentment. Dealing with the psychomotor centres which affect the movement of the hand and arm, he remarked that the minute division of labour in factories and workshops in these days imposed an excessive strain on a few nerve centres, whilst great numbers of the circuits were left in desuetude. In primitive employments, such as agriculture and navigation, all the muscles of the body were brought into play from time to time in ever-varying combinations. In this connexion he mentioned, on the authority of a Sheffield gentleman, that a penknife maker had to deliver 28,000 accurate strokes with his hammer daily in order to earn a living. When subjected to no unreasonable treatment, but well and wisely used, the hand and arm centres retained their cunning in its highest degree long after the forty-fifth year, and although some failure in their power was among the inevitable consequences of advancing years, that failure need never be extreme. The command over volitional language was greatest between forty-five and fifty, and there could be no doubt that among orators it was between the ages of forty-five and fifty-five that their special endowments had for them the highest triumphs. With respect to written language, the evidence that its choicest evolution came in what was called middle life was, he thought, cogent and conclusive. Two journalistic friends of his, both over fifty years old, who had made a few experiments for him, attested that they had a greater flow of language than they had twenty years ago. Judgment and reason came to their perfection later than speech—in all likelihood between the fifty-fifth and sixty-fifth years; while the moral sense and religious emotions, although influential in some degree throughout life, evolved most munificently last of all. The best antiseptic against senile decay was an active interest in human affairs, and those kept young longest who loved most. It was a cogent argument against celibacy that it could hardly hope in its isolation to enjoy a green old age, lacking as it did those vernal influences in which parents renewed their youth. If he were asked to what extent retrogression was hastened and old age abbreviated, he must say he thought it a good working hypothesis that the natural life of man was a hundred, and that in so far as it fell short of that it was "curtailed of fair proportions." He would especially exhort the medical students before him to start with a resolution that they would not be content with a duration of life shorter than that either for themselves or their patients. They might not always be able to realise their fixed purpose, but they would work all the better for having a higher standard before them. According to Buffon's view, each animal was projected into life with an impetus equal to carry it a certain distance against average distance. That impetus, in the case of man, ought to carry him just one hundred years, but the increased friction to which he was exposed by all sorts of artificial obstacles strewn in his course led, in an immense majority of cases, to his arrest in his career at a point far short of his natural goal. Still, however, a select few did reach that goal, and even ran beyond it, and it was upon their accomplished feats rather than on *a priori* reasoning that we should base our hope than in the good time coming, when sanitary wisdom should prevail in the land and the gold fever and typhoid fever were alike stamped out, numbers of our species might be able to count on a round hundred years of wholesome, happy life and inevitable old age, tranquil and interesting, unmarred by the morbid accessories which were now generally attached to it. Centenarians were not now the *rarae aves* which they were once supposed to be. In England and Wales in 1889 the deaths of seventy-six reputed centenarians were reported, and of late years a number of cases had been strictly inquired into in which there could be no reason to doubt that life had been prolonged to one hundred years and upwards. And from further inquiries it was recognised that those who lived to a hundred did so by virtue of their freedom from degeneration, and succumbed finally to inevitable old age and general atrophy, which, although of gradual invasion, need not very seriously cripple the centenarian until close upon his term of dissolution, and cases might be quoted of much activity and enjoyment in life even beyond a hundred years of age. The atrophic changes characteristic of old age were not altogether beyond remedial treatment. Curable they could scarcely be called, but much might be done by change of climate, by regulation of diet and of habits of life, and by therapeutic agents, to slacken their progress or arrest their advance. They would be able in many ways to relieve the sufferings and lessen the frailties of their senile patients, although they would not be able to confer upon them that rejuvenescence which many of them, and those generally the most dilapidated, would expect of them. Since the days of the Ptolemies, when it was believed emetics and sudorifics would abolish the tendency to death, down to the present time, the search for the elixir vitæ had gone on uninterruptedly, and visionaries and quacks had continued to delude and prey upon mankind. And a study of all the means proposed at various times for the indefinite prolongation of life or the restoration of youth conducted to the humiliating conclusion that the superstitions of the *fin du dix neuvième siècle* were more silly and preposterous

than any that had ever plagued "the secret spirit of the adepts." There was no short cut to longevity. To win it was the work of a lifetime, and the promotion of it was a branch of public medicine. Perchance one of these days we should have an International Congress on Old Age, with an exhibition of dotards for warning and of hale and hearty centenarians for encouragement. At any rate, they might rest assured that it was by a steady obedience to the general laws of health that old age might be attained, and by judicious regimen that it might be prolonged. The measures necessary for the promotion of old age on the large scale lay beyond the control of the medical profession. They could not always change the spirit of the age, abolish avarice, vainglory, and the lust of power, or quell even the gratuitous excesses of the struggle for existence that raged around; but they could do something by pointing out to those who would listen to them some great perils that might be avoided, and they could also give the weight of their support to all movements tending towards the betterment of our race. He instanced as a movement of that kind specially related to his theme that day the project for national insurance against old age which Mr. Chamberlain had done so much to advance. Life insurance had, by the tranquillity of mind which it had conferred on those who had taken advantage of it, done much to avert madness and prolong life, and national insurance against old age by removing apprehensions that must sometimes harass even the bucolic mind apprehensive of pauperism, so ignominious to an Englishman when work was done, would, he was confident, conduce widely to the attainment of sound and pleasurable old age.

SHEFFIELD SCHOOL OF MEDICINE.

ADDRESS BY MR. W. F. FAVELL, J.P.

THE sixty-fourth session of the Sheffield School of Medicine was opened on Oct. 1st, when Mr. W. F. Favell, J.P., the President of the School, gave the inaugural address at Firth College. The chair was occupied by Mr. Arthur Jackson. The large hall was well filled with medical gentlemen and students.

Mr. FAVELL, who had a hearty reception, said that when his colleagues did him the honour of asking him to open the session this year he felt that he could not decline. He owed so much of the happiness of his life, and no small measure of what success he had attained, to the kindly feeling and ready help of his medical brethren that it was both a duty and a pleasure to show his gratitude by complying with any request they might make so far as it lay in his power. In entering upon his address, he could hardly help comparing the present condition and equipments of the Sheffield School of Medicine with its condition when he was a student forty years ago, nor could he help congratulating those who were now actively engaged in teaching on the most satisfactory and encouraging state of the school. Not only was it numerically stronger than it had ever been before, but the teaching staff had been greatly strengthened by the addition of able and enthusiastic young men; and their connexion with the Firth College had enabled them to get valuable help in scientific teaching from several of its distinguished professors. All who were engaged in teaching in his student days were gone, but the memory of some of them would be a joy to him as long as he lived. The last, his old friend, Dr. Bartolomé, departed but a year and a half ago; no more able, assiduous, and regular lecturer ever existed. These reminiscences of bygone days brought forcibly to his mind the truth of Dr. Gatty's remarks when he said, "One of the penalties of longevity is that we outlive our friends, and we have not the heart to make new ones." Nevertheless, it was pleasant to see amongst the names of the very able and active working staff of the present School of Medicine the sons of some of the men who did such good work in the old school. They had now infinitely better and more commodious premises in which to carry on their studies, but he wished he could see the new school out of debt. He thought he should. The names of Jessop and Wake would be remembered as long as the charities which were the recipients of their munificent generosity lasted, and he ventured to think that the efficiency of an educational centre for the training of those who were destined, in all probability, to be the future physicians and surgeons to those charities was a matter of no small concern to the inhabitants of Sheffield. But some might ask, Was it a good thing to have these provincial medical schools? Were they worth supporting, and did they work well for the public and the medical profession? The arguments urged against provincial schools were that the teachers holding chairs in the great metropolitan schools were men of acknowledged eminence; that the equipment of the metropolitan schools was as perfect as it could be; and that the students there had advantages which provincial schools could not command. But he urged that, on the other hand, provincial schools possessed advantages over the metropolitan schools. In towns like Sheffield, great manufacturing centres, there was enormous material for teaching, the value of which could not be overestimated, and which it seemed almost a sin not to utilise. In their school they had the most important requisites for imparting a thoroughly sound, practical, and scientific training. In small schools like theirs students were necessarily brought into closer personal contact with the teachers than they could be in the great London schools; and they had therefore a better chance of receiving a more thorough and practical grounding in their work. A man might be a thorough master of the scientific side of his profession, but if he had not had the opportunity of practical acquaintance with disease and injury, under some competent master, he would find himself at sea when he commenced the practice of his profession. He often felt himself appalled when he thought of the responsibilities that rested on the shoulders of the medical man; what a power for good or for evil he might be; and he could not too strongly emphasise his conviction that before any young man received a diploma authorising him to practise he ought to be compelled to produce evidence of having spent twelve months in the careful study of disease at the bedside of patients, under the supervision and guidance of an experienced and competent medical man. But another point in favour of provincial schools was that young men were offered the advantages of a sound and practical training without being withdrawn from home discipline and home influence. A last reason: the schools were a benefit to the profession and the community because they guaranteed to the public the existence of a staff of medical men who must keep well abreast with the discoveries and advances in medical and surgical science and practice. To the students of the school he would address a few words of advice and encouragement. The medical profession was one full of interest and full of charm to those who had a taste for it, but he could imagine it being very distasteful to those who entered it without having any love for the work. The five years they had to devote to study was not one bit too long; there was so much to learn and the responsibilities to be incurred were so great. He ventured to express the confident hope that with the training they would get at the Sheffield school it would be their own fault if they did not commence the work of life as well armed for the struggle as any young men could be. They would find, however, if their curriculum extended over fifty and five years, instead of only five, how much they still had to learn; the medical man was a student all his life. Looking beyond their student life, he would say that nothing was more important than that a young man commencing practice should have a deep sense of professional morality and integrity; that he should be guided by the upright and honourable instincts of a gentleman in his relations with his medical brethren, and at the same time that he should have a keen appreciation of his duties and obligations to the public. He was aware that the present struggle for existence was a very severe one. It had been said that the average London medical man only began to make his bread and cheese when he had lost his teeth wherewith to eat it. But he believed, by patience and strict attention to work, it was open to all of them to make a competence; but he warned them not to let their impatience for success lead them to adopt unworthy means to secure it. They might gain some temporary success, but they would not succeed to their own satisfaction, nor would they secure the confidence of those whose good opinions they most highly valued. What he believed would help them to attain this object more than anything else was to cultivate a spirit of true and genuine sympathy. He was afraid that many young men, in strong and vigorous health, were not very sympathetic. Let him beg of them not to let familiarity with suffering blunt their feelings of sincere sympathy with the sufferer. The profession they were just entering was indeed worthy of the most devoted and persevering study, for it was a high and a holy calling.

THE COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.

ADDRESS BY DR. HEATH.

THE winter session of the University of Durham College of Medicine, Newcastle, was formally opened on the 1st inst. in the library of the institution, on which occasion the prizes and scholarships were distributed to the winners thereof by the Marquis of Londonderry.

Dr. HEATH (the President) occupied the chair and delivered an address. After welcoming them most cordially to the thirty-ninth session of the College, he said that he had a report from their excellent secretary, Mr. Fox, showing that the number of students attending lectures, and also candidates going up for Durham degrees, had gone on progressively increasing since they entered that house two years ago. He had to announce that Mr. Stephen Scott of Harrogate, formerly of Newcastle, actuated by his love of science, his desire to further medical knowledge and to alleviate human suffering, had placed in their hands £1000, part of which at least, he hoped, would be handed over to some of the students, or to the author of the best essay upon an interesting and not uncommon disease. It would be interesting to them to know that the period of medical education had been extended from four to five years by the action of the General Medical Council. The Council was also deeply interested in that important subject, the prevention of disease, which was really the urgent and most pressing medical question of the day. Jealously watchful, he might say, that the education given to candidates in degrees or certificates for hygiene should be fair and genuine, they had now added to previous regulations a proviso that all candidates for degrees should spend six months in a laboratory, where they should obtain practical instruction in everything that pertained to hygiene and sanitary science, and also where they would learn something of the relations of the diseases of animals to the health of man. He felt that the College of Medicine would do wisely to recognise the feeling of the profession, and also of the general public, with regard to this subject. The University of Durham had quite recently undertaken to confer degrees in hygiene, and they were under the obligation to meet this enlightened action of the University of Durham by providing for candidates an effective and sufficient education. The best mode, he thought, of doing this would be to establish in the sanitary department of the College a laboratory of hygiene where students in sanitary science, and where candidates for degrees in hygiene, or others who from official position or taste would like to take up this subject, would be instructed; also where students would be taught to recognise the importance of tracing the origin—to follow out the whole life history—of those minute creatures who in the present day were considered to be the living causes of disease. Such a laboratory would not only be a benefit to the College itself, but a public benefit to the district. What, after all, could be of more overwhelming importance than the prevention of disease—that factor which of all others rendered life miserable, if it did not destroy it? He would read an extract to them from a speech of the Prince of Wales on the occasion of the opening of the Institute of Hygiene in London. The Prince of Wales said: "As one looks over our programme it is impossible not to feel distress and even horror at the multitude of dangers to health in the midst of which we have to live. Some of these appear to be at present inevitable, but a great number may with certainty be averted." They had to remember that that was not from a doctor, but the head of this nation, the future king. He had not time to describe or even to enumerate the many diseases already swept away by appropriate measures. He would select one, and endeavour to illustrate how such a laboratory as he had described would prove useful, not only to that College, but to the district. He would take tuberculosis, and give the words of Burdon Sanderson—a Newcastle man. In opening a discussion on tuberculosis he said: "There is no disease, acute or chronic, so productive of human suffering or so destructive of human life." These were strong words, but he thought there was not a medical man in that room who would not endorse them as representing the simple truth. The seeds of tuberculosis might be found in divers places. They might enter the body by more than one route, but like other evil things they haunted dark and secret places. They found tuberculosis in the milk of the cow, and they might take it for an absolute certainty that such infected milk would infect children who partook of it. Now, how was this most disastrous infection to be prevented? Not by depriving children of what was their natural and appropriate food, but by rendering that food wholesome, and this could only be done by inspection of milk, of dairies, of byres, of slaughter-houses, and of meat generally. So as to be sure that no mistake might be made, they would require skilled experts. No such experts at present existed; they had to be taught. He felt sure that such a department of public health as that College was the very place where such instruction should be given. It would have to be given, it would have to be done, and this was the time to do it. He was told there were a great many difficulties in carrying those ideas into practice. What they were doing in America with regard to the matter was this: they wished to sell their pigs' flesh to the Germans, but the latter would not take it unless they knew that it was sound and free from tuberculosis. So they had an army of 3000 inspectors in Chicago alone. What the Americans could do for their pigs could we not do for our living children? They were sometimes told that they lived in a necessary struggle upon this earth with the forces of nature. Well, the forces of nature were not always inimical to them. Life itself, indeed, might be said to be the result of the action of those forces. But the forces of disease were always hostile to them, and they courted the conflict. Now the power of disease—that mighty power—was based upon an army of innumerable microscopic units, invisible and intangible to their unassisted senses. If any of these effected an entrance into the human body, then a struggle took place within them. The issue was uncertain, but even if favourable, a struggle of that kind always left behind disastrous effects. But if they were able to grapple with those minute creatures in their own haunts and thus destroy them, the battle was fought outside the body. The struggle was then more favourable to them. And although the battle might be protracted, difficult, and arduous, nevertheless the issue was certain, and the victory belonged to man. And he would ask, was not the victory the purest under heaven that was waged with weapons no more deadly than the test tube and the microscope? It was not attended by bloodshed or by remorse. He should like to see prosperous, wealthy, and populous Newcastle take a foremost place in this battle, and he would like to see that College also take a foremost place in it, and both of them receive an honourable share of the glories of that victory.

UNIVERSITY COLLEGE, LIVERPOOL.

ADDRESS BY PROFESSOR NICHOL.

ON Oct. 3rd, after the distribution of medals, prizes, and certificates by Lord Derby, Professor Nichol delivered an address. He said that on being requested to open the ensuing session of that University, his sole difficulty was that of saying something both new and true. He had a special difficulty in the fact that since selecting a theme he had found himself largely anticipated by two most capable scholars—Professor Bradley and Mr. Churton Collins. With what these two gentlemen had said on the position of English literature in the curriculum of an English college he so wholly concurred that he could do little more than expand, illustrate, and accentuate some of their views. That their university systems had been so frequently arraigned of late testified to the interest in education, which was the best feature of our time, as well as to the restlessness, which was its worst. The danger of organised training was rigidity—the hidebound sameness of pedantry on the one hand, and on the other of a contracted utilitarianism. The former was the vice of old universities; the latter should be the bugbear of the new. A college set in the midst of a great commercial society, to whose munificence it owed perhaps its establishment, must be jealous of its independence, nor over-grant the claims of those who, having helped to lay the keel of the ship, aspired to hold the helm. Let them devote themselves to what was useful, but let them give a large meaning to the word, and include within it whatever pursuit opened out a new source of mental activity or tended to make them worthier students, more sympathetic teachers, better citizens, or in any of the relations of life wiser men. In this regard he need say nothing of the claims of physical science, mental philosophy, and

little as to the languages and literatures of Greece and Rome. He had no sympathy with their disparagement. Every argument in favour of the study of language in general applied with double force to that of our own. The literature which it had enshrined was the greatest and most varied of all modern literatures. It involved the knowledge of others sufficient to modify our own exclusiveness. Like our commerce, it held out hands to half the nations. Itself of no mushroom growth, it had transcribed for our instruction—not always, indeed, in perfect style, but with material accuracy—the best wisdom of the older world. Matthew Arnold remarked, in one of those freaks of phrase which he was so constantly denouncing, and in which he so constantly indulged, that "the English zeal for education is that of a newly awakened sinner." That was hardly fair to the memories of Alfred, Ascham, Bacon, Milton, and Knox. But it was quite fair as applied to the provision made in our universities for their higher study of our language and literature. He then proceeded to deal with Mr. Freeman's remark that he did not wish English literature to be recognised in any university curriculum; first, because it was a subject which could not be taught, and, second, because all attempts to teach it had been simply mischievous. The business of a university was, they were told, to teach a scholarly knowledge of languages, not their practical mastery. Facts might be taught, but the delicacies and elegancies of literature could not be driven into any man. Freeman's whole argument was a sheaf of assumptions so false, and of fallacies so shallow, that it were mere waste of time to discuss them if they were not living in an age in which "mere iteration" proceeding from any show of authority in politics or literature carried belief. The first of these was the assumption that the whole duty of a university was to set examination papers, and to cram, grind, drive, or hammer students into shape to answer them. Another false postulate was that there was no standard of taste—a presumption fatal to the idea of instruction in any art, refuted by the fact that when the mists of passing mannerisms and the frolics of fantastic schools had faded there emerged a substantial agreement on the merits of great works and authors. He would certainly advise anyone desiring to make literature the business of his life to make sure that he knew what he was undertaking, and to realise the risks he ran. M. Renan had said that no one had had the same advantages as the French Academy for fighting against the mischief of inferior literature, and Arnold had added that France would not tolerate such slovenly journeyman work as was to be found in our provincial and in all but the best of our London papers. The English universities should constitute the English Academy, but hitherto in this matter they had betrayed their trust, and handed over the artistic censorship of the press to the whims of the populace. The learned Professor, bidding truce to controversy, spoke of the study of literature as a comment on history and a lesson in life. Knowledge of the thought of other men was the surest means of lifting us out of the rut in which the subdivisions and details of our distrait activity would otherwise constrain us to move. He advised students in the study of literature to find out what they could do with a fair amount of work, and to do it. A general survey of the stream of literature bade them believe in the ultimate progression—not, indeed, of individual genius, but of collective wisdom. The same survey also compelled them to be tolerant of differences of opinion, and, what was in the long run more difficult, differences of character.

THE SANITARY ASSOCIATION OF SCOTLAND.

THE seventeenth annual Congress of this Association was held in Edinburgh on Wednesday and Thursday, the 23rd and 24th of September. Dr. Farquharson, M.P., on Wednesday presided, and the meetings were held in the Council Chambers. The proceedings commenced with the holding of the annual business meeting, at which the report for the year and other matters were considered. Thereafter Dr. Farquharson proceeded to deliver his presidential address on a "Model Hygienic State, or a Glance at the Sanitation of the Future." He referred to the necessity of more organised attention being given by Parliament to hygienic matters by the appointment of a Minister of Public Health. While acknowledging the great advances made during the past fifty years in sanitation, he doubted whether we had profited as much as we might by the experience of the past. Things were no doubt better than they were. County Councils had introduced a better regulated hygienic machinery into localities, and had, in Scotland at all events, been compelled, by combination or otherwise, to appoint scientific professional advisers in every district. He thought, however, that the salaries given to the medical officers were too small for the class of men who were required. He also dwelt upon the necessity of a closer union between headquarters and the various branches of the Public Health service throughout the country. The medical officer of health, whether working patiently on in some remote district or fighting the battle against a dreadful disease in a large town, would derive help and stimulus from an occasional visit to headquarters, or from a call from a peripatetic inspector from a central office; and those who formed the organising and initiating brain, to which these different cords converged, would equally depend for their plans of coördination and hygienic campaign on the reports they received, and the comments and reflections which various acute minds, working locally, had to make on the facts coming under their observation. The central authority, as at present constituted, was not able to do this, nor was it likely to be so long as it remained only a bit of another department. Agriculture had been separated from other things, and was now under a separate board, and what had been done for it ought to be done for the public health. It should be handed over to a distinct and separate department, whose chief would have a seat in the House, and even in the Cabinet, and have supreme jurisdiction over an extensive and well-organised intelligence bureau. Nothing could be better of its kind than the work embodied in the yearly reports from Dr. Buchanan's office. Conceived in the highest scientific spirit, it was carried out with a zeal and skill and patience which were the admiration of hygienic authorities all over the world. But there was far too little of it. What they required was an army of experts and inspectors who were not obliged to wait for orders from a bureaucratic network of red tape before they could set their machinery in motion, but who were always working well ahead, investigating causes, devising means for preventing, and giving active and practical help to every line of research which had any bearing on their proper lines of progress. The rate of scientific movement was at present enormously rapid, but it was almost exclusively worked by private persons, and although no one would seek to limit or discourage individual effort, he did hold that Government should do more to help those who were thus so effectually helping themselves and others. A strong department such as he had indicated would not only initiate and carry out independent lines of research, but would aid and subsidise those who were proceeding in parallel directions, and would by their authority induce successive Governments to reduce with something like reasonable promptitude the settled facts of science to practical application. Dealing with the details of this proposal, he referred to the fact that the very perfection and comparative complexity of modern systems of drainage became also a means of propagating and disseminating infective diseases, and he would place the direct and undivided responsibility upon some one to see that the network of precautions was always in perfect order. What was to be done with the sewage matter was one of the pressing questions of the day. But better drains would root out typhoid and diphtheria. Another class of maladies was more obscure in their origin; but whatever that might be, it was their present duty to diagnose early, to notify and to isolate effectually, as well as to treat. Great difficulties would arise here, but the necessity of isolation was beyond question. Over all such matters the County Councils ought to have control. In matters of doubt and difficulty appeal would be made to the larger bodies sitting in the centres, and they again could refer to the head centre of all. He thought such a head centre should have a seat in the Commons, and he hoped that on either side of the House carefully trained men might be found who would give themselves up to this work, and be put into office over and over again as opportunity offered. When this Utopian scheme was in existence and everyone lived to a hundred years, it might become a question where all were to be stowed away. This fortunately was no concern of theirs,

and had to be left to the wisdom of the dim and distant future. Dr. Farquharson was awarded a vote of thanks for his address.

The first paper was one of special interest for the manner in which the subject was treated, and for the standpoint from which it was regarded. It was by Mr. P. Fyfe, on Zymotic and Tubercular Diseases in Scotland. At the outset he referred to the partial revolt that was arising in the minds of the public against preventable disease and its cause, and that the most pressing work of sanitary reformers was not so much to legislate as to educate. He then proceeded to consider the general progress of health in Scotland, and the particular decrease and increase of death in the various counties since registration in 1855 to 1888 First, from all causes; second, from zymotic diseases; third, from tubercular disease. His thesis was that while Scotland as a country had advanced during the past thirty-three years in public health, and the death-rate from zymotic diseases had all over been greatly reduced, tubercular disease had not made anything like a corresponding decrease, and in a considerable number of localities had in this period been stationary or was increasing; and, further, as tubercular disease was now known to be largely preventable, and had been proved to be directly communicable from man to man and from animals to man, the time had come when it was desirable and necessary in the interests of the people to have such special legal powers from Government as should, when applied, materially reduce the death-rate from this class of disease. With the object of elucidating this question, he examined and compared the two septennial periods of 1855 to 1861 (both inclusive), and 1882 to 1888. During the first septennial period 21·28 per cent. of the total deaths were from zymotics; in the last septennial the percentage fell to 13·16. For tuberculosis, however, the percentage during the first of these periods was 16·14, and during the second period it had only fallen to 14·48 per cent. With regard to the different counties, ten of them had apparently gone back in health; but they all showed a progression in the right direction in regard to zymotic diseases, although some tended to linger backwards as compared with others. As regards tubercular disease in the various counties they showed as a rule even lines of undiminished death, although in twenty-two counties there had been a gradual though small improvement. In six it had held its own, and in the remaining five it had gained ground. The conclusion was that, so far as tubercular disease was concerned, sanitation, as at present supported by law, had been a failure, and that it was the people themselves who were to blame for the state of the law; they wanted teaching, warning, and stirring up.

This paper was followed by one by Dr. Coats of Glasgow on Tuberculosis viewed as an Infectious Disease, its Prevalence, and the Frequency of Recovery from it, with special reference to Sanitary Questions. He pointed out that pathologically tuberculosis was an infectious disease, and then proceeded to examine the question as to the number of persons who were affected at one time or other with tubercular disease. The Registrar-General's tables were not sufficient to answer this question and Dr. Coats with a view to so doing, had examined recent statistics of the number and cause of deaths in public hospitals in different parts of the country, and he thought they might safely affirm that of the deaths which took place under the age of ten years in the mass of the people, somewhere about one-third was due to tuberculosis. In the Registrar-General's returns the percentage was 10·6. He thought the discrepancy was to be accounted for by errors in diagnosis, and by death being stated to have resulted from a remote and not from the real cause. Next, dealing with the question of recovery, he said that the result of his own observations in the Western Infirmary during ten months of 1890 was that of 123 cases available, twenty showed signs of active tuberculosis, and tuberculosis was assigned as the cause of death. Of the 103 cases in which diseases other than tuberculosis were assigned as the cause of death there were in twenty-four indications of healed tuberculosis. Taking all these things into consideration, he thought that about 45 per cent. of all persons born into the world were affected before they died by tuberculosis in one form or another. This was accounted for by the facts that tuberculous human beings were a source of infection, and that it was a frequent disease in domestic animals, especially those consumed as food. As practical people it should be their aim to use every means to check the disease. There was in the case of tubercular diseases as much of preventability as in the case of the more acute fevers; and in connexion with it he was strongly of opinion that the questions of notification, isolation, and disinfection should be seriously discussed. With regard to tuberculous animals, he advocated their entire destruction, as they were a source of danger to the community, and he declared himself as firmly believing in the risk to those consuming the meat or the milk of tubercular cattle.

These two papers led to a good deal of discussion, and some exception was taken to Dr. Coats' figures. Dr. Hay of Aberdeen said that he was of opinion that the flesh of an infected animal did not contain any tuberculous matter; but he did not therefore believe that tuberculous meat could be eaten with impunity.

Dr. E. Duncan of Glasgow then read a paper on Statistical Facts required in the Scottish Registrar-General's Mortality Tables, particularly with regard to Disease and Mortality in reference to Occupation. He pointed out that at present two-thirds of Scotland were left in statistical darkness, and that the present general mortality returns were, in the absence of detailed statements as to the causes of death, positively misleading. Another important matter of detail was the mortality in public institutions, which at present was credited to the districts in which the institutions were situated. Next, as regards trades and professions, no attempt had been made in Scotland to furnish the public with tables showing the causes and comparative rates of death in these. Another serious defect in the Scottish reports was that no decennial supplement was issued. He thought it would help in the solution of various questions if tuberculous disease were added to the list of contagious diseases which should be notified. He considered it was not creditable to Scotland that when Scottish sanitarians, in the health interests of their fellow-countrymen, desired any reliable statistical information beyond the most elementary facts, they were compelled to search the mortality tables of other countries to obtain it. After the discussion on this paper, a motion was agreed to unanimously pointing out to the Secretary for Scotland the need of greater detail in the returns of the Scottish Registrar-General.

The next paper was by Professor McFadyean (Edinburgh) on the Sanitary Control of Milk-supply in Cities. In this communication he dealt mainly with the question of tuberculosis, and stated that tubercle bacilli were not rarely present in the milk of cows suffering from tuberculous disease. This might be from disease of the udder, but the milk might contain the bacilli although the udder was not the affected part, and it was his conviction that the milk of cows with tuberculosis in any organ of the body should not be sold for public consumption. At the present time 20 per cent. of the dairy cows in Edinburgh were affected with tuberculosis in a more or less degree, and this was probably the proportion of tuberculosis in dairy cows throughout Scotland. They might safely assert that tubercle bacilli were sold daily in every city in the country at the market price of wholesome milk. He then referred to other ways in which milk might become contaminated and become the vehicle of infection. He advocated the cooking of milk as a means of destroying the germs which were most harmful He also insisted on the necessity of thoroughly efficient veterinary inspection at short intervals of dairies and of dairy cattle. A number of members took part in the discussion on this important communication, and they all in the main agreed with the principal contentions of Dr. McFadyean's paper. Principal Walley, in speaking to the paper, referred to a herd of eleven milch cows whose slaughter he had to order, and although he thought he had never seen healthier animals, yet when they were slaughtered it was found that out of the eleven cows seven had tuberculosis. This showed the greatness of the danger they were contending against and the difficulty of diagnosing in the case of tuberculosis.

Some other papers followed of a less important kind, and the Congress terminated with the usual votes of thanks.

The Congress will meet in Aberdeen next year.

PROPOSED COTTAGE HOSPITAL FOR CUPAR.—Mr. John Gilmour of Lundin and Montrave has subscribed £200 for the erection of a cottage hospital in Cupar. £1000 is required, and, independent of the above, a number of liberal donations have been received.

REUNIONS AT THE METROPOLITAN HOSPITAL MEDICAL SCHOOLS.

ST. BARTHOLOMEW'S HOSPITAL.

THE Annual Dinner of Old Students took place on Oct. 1st in the Great Hall of the Hospital; Sir William Savory, Bart., surgeon to the Hospital, in the chair; 152 diners were present, including 87 old students, 36 members of the hospital and teaching staff, 17 personal friends of the above, and 12 visitors of distinction. Amongst the latter were Sir Frederick Abel, Sir Trevor Lawrence, Sir George Paget, Sir Sydney Waterlow, Professor Flower, Professor Attfield, and Mr. Trimmer. The toast of "The Army, Navy, and Reserve Forces" was proposed by Mr. Power, and replied to by Professor Godwin, of Netley, and Dr. E. F. Hall. "The Treasurer" was toasted by Dr. Thorne Thorne, Sir Sydney Waterlow replying. Dr. Church proposed "The Visitors," Sir George Paget replying. "The Chairman" was proposed by Sir James Paget, and Sir W. Savory replied. Dr. Andrew proposed "The Honorary Secretary of the Dinner," Dr. Hensley replying in a humorous speech, in which he referred to the strange addresses of many of the old students in practice to whom he had issued invitations. One lived in "Cemetery-road," another in a yet more ominous locality called "Tombland." After the dinner the whole party adjourned to the Library; the Museum was also kept open so that the exhibition of additions to the collection might be inspected.

GUY'S HOSPITAL.

A meeting of the Physical Society of Guy's was held on Oct. 1st. The chair was taken by Dr. Taylor, and he was supported by Dr. Wilks, Sir Henry Peek, Dr. Uhthoff, and a large number of the members of the staff and of past and present Guy's men. The dinner was excellent, and was well and quickly served, and it will be difficult to improve on it in future years. At 8 o'clock everyone adjourned to the anatomical theatre, which was soon crowded, and recourse had to be made to the balcony in order to find room for late arrivals. Dr. Wilks took the chair amidst prolonged cheering, and rose to deliver his opening address. He said: "It has been the custom for the honorary president to take the chair at the first meeting of the Physical Society and to make a few remarks to the new students on medical education in general and on the advantages of the Guy's School in particular. When I returned from my holiday I found a communication from the editor of the *Guy's Gazette* asking me to write an address to you all in the students' number of that journal. Some of you have no doubt read it, and those of you who have not had better go and subscribe to it to-morrow. My remarks to-night therefore will be very few, and there will be more time for the reading of the paper and for the discussion which follows it, and also for an exhibition of lantern slides which I hear is to take place in the chemical theatre, and which I mean to go to myself. As regards the course of study you will pursue, you probably all know it by this time, and I need say little about it. The Medical Council have suggested that in future a five years' course of study shall be required, and the examining boards have adopted the proposal. There is, however, much debate as to how the extra year shall be employed. The Medical Council suggest that it should be entirely given to practical matters. The Physiological Society have petitioned that it should be given to physiology; others ridicule this idea, and also assert that the science required by the University of London for its degree in medicine is quite unnecessary. This is not my idea at all; I think a man who wishes to take a University degree should know a good deal about physics and the allied subjects. Some have suggested that the year should be spent in learning mental philosophy, psychology, and insanity. Several members of the Medical Council are of opinion that the year should be devoted to the study of midwifery and diseases peculiar to women, and the debates on this idea have been most varied. Since the world has been, all quarrels and contentions have had a woman at the bottom of them, and perhaps the same applies to her ailments. For my own part, I think the time should be spent in learning the general diseases more thoroughly—diseases such as the exanthemata. At one time scarlet fever was taken into the hospital; now this has very rightly been stopped, but the result is bad for the students?" Other papers and a lantern demonstration followed.

KING'S COLLEGE HOSPITAL.

The opening of the medical session at King's College was marked by a very pleasant reunion of old students in lieu of a more formal meeting and introductory address. Under the presidency of Mr. T. Pridgin Teale, F.R.C.S., over seventy old students and friends of the hospital dined together at Limmer's Hotel. In the course of the speeches many references were made to the Charter of the proposed new University, and the effects it would probably have upon the medical schools of the metropolis. Various toasts were proposed or responded to by the Rev. Dr. Wace, Principal of King's College and Chairman of the Hospital Committee; Mr. Richard Twining, treasurer of the hospital; Deputy Surgeon-General Palmer, Surgeon-Captain Bond, Professor Curnow, Dr. Fenn, Dr. Baddeley, Dr. Bushell Anningson, Mr. Henry Lee, Dr. Thomas Buzzard, Professor Playfair, Rev. N. Bromley, Professor George Johnson, Professor Bentley, Mr. Arthur Napper, and Dr. Walter T. Brooks.

THE LONDON HOSPITAL.

The opening ceremony at the London Hospital took the form, as has been the custom of late years, of a dinner in the College Library. The number of old students present exceeded that of any recent year. Much interest had been excited in the extensive additions which had been made to the College and Hospital buildings, and in the opening of the new operating and the new clinical theatre. The chair at the dinner was taken by Mr. Hutchinson, F.R.S., consulting surgeon to the hospital. Nearly the whole of the staff of the hospital was present, and among the old students were Surgeon-General Codrington, M.S., Brigade-Surgeon Lieut.-Col. Ray, Dr. Brownfield, Dr. Tripe, Dr. F. M. Corner, Dr. Munday, and others. After the usual loyal toasts the Chairman proposed "Success to the London Hospital and Medical College." He dwelt upon the loss the hospital had sustained in the death of Dr. Sutton, and upon the remarkable influence this great teacher exercised over those with whom he had been brought in contact. He discussed in interesting phrases the question of the continuity of human effort and the power exercised by individuals in the unbroken stream of progress. Mr. Murray Ind, the chairman of the House Committee, responded on behalf of the hospital, and gave an account of the development and completion of the new wing which has added so greatly to the teaching capabilities of the institution. Dr. Stephen Mackenzie, in replying on behalf of the College Board, alluded to the falling off in the number of entries due to the raising of the general fee, and pointed out that, although the fee had been increased but 1*s.* 5*d.*, the teaching capabilities of the college had been augmented threefold. A few remarks from Mr. Nixon, house governor, and the drinking of the health of the chairman, brought the meeting to a conclusion.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.

The introductory lecture was delivered by Mr. Henry Juler on Oct. 1st. In the evening the dinner of the past and present students took place at the "Criterion." An old student of the hospital, Brigade-Surgeon Myers, Scots Guards, was in the chair. The dinner was well attended, the guests numbering 161, including Sir Edward Sieveking; Drs. Broadbent, Cheadle, Braxton-Hicks, Lees; Messrs. Norton, Edmund Owen, John Moore, J. P. Drew, and many others. Surgeon J. P. S. Hayes, Staff Surgeon J. T. Preston, R.N., and Captain J. Coleman Barr replied to the toast of "The Army, the Navy, and the Reserve Forces;" Dr. Danford Thomas and Mr. Franey for "Past and Present Students;" and the toast of the evening, "Prosperity to St. Mary's Hospital Medical School," was responded to by the Dean, Mr. G. P. Field. Messrs. Critchett, Thornton, and Carter enlivened the entertainment by some capital songs.

THE MIDDLESEX HOSPITAL.

The annual dinner of the past and present students of this hospital took place at the Holborn Restaurant, Mr. B. T. Laurie, F.R.C.S., presiding. Upwards of eighty sat down, including amongst the guests Lord Sandhurst, the chairman, Mr. Bell Sedgwick, J.P., vice-chairman, and several other members of the weekly board of government. The toast list included: "Prosperity to the Middlesex Hospital and Medical School," given by the chairman, and

responded to by Lord Sandhurst and Dr. W. Pasteur; that of the "Past and Present Students," proposed by Mr. T. W. Mann, and replied to by Mr. F. Parsons and Mr. Arnold Lawson (Broderip scholar); the health of the "Lecturer of the Day" was proposed by Dr. Biss, and acknowledged by Dr. W. Duncan. The health of Dr. Finlay, who is about to leave London to take up his appointment as Professor of Medicine in Aberdeen University, was then proposed by Dr. Coupland, and was received with enthusiasm. Dr. Finlay replied in feeling terms, acknowledging the value of his long connexion with the Middlesex Hospital, and the regret he felt at having to leave it. The toast of the "Visitors" was given by Dr. Cayley, and responded to by Mr. C. C. Cotes and by Dr. Pringle (on behalf of Mr. W. Ganz, who had to leave early to fulfil an engagement elsewhere). The proceedings closed with the health of the chairman, given by Mr. J. W. Hulke, and humorously acknowledged by Mr. Lane. The speeches were interspersed with much excellent vocal music, under the direction of Mr. Ganz and Dr. Pringle, in which Mr. Charles Ganz, Mr. Burkingyoung, Mr. Albert Reakes, and Mr. A. Smithson took part.

ST. THOMAS'S HOSPITAL.

The medical session at this school was opened by an introductory address, delivered in the governors' hall at 3 P.M., by Sir G. M. Humphry of Cambridge. This address, which has already appeared in our columns, was listened to with much attention by a large assembly of students and their friends. The prizes and certificates gained during the previous winter and summer sessions were given by Sir G. M. Humphry before the address was commenced. In the evening the annual dinner took place, Dr. Gervis in the chair. This year it was in the Victoria Rooms of the Savoy Hotel, and there was a large gathering of the staff and old students, amounting to nearly 150. After the usual loyal toast the chairman proposed "St. Thomas's Hospital," to which the treasurer of the hospital replied. Dr. Barnes proposed the "Health of the Chairman," who was enthusiastically received when he replied. "The Visitors," proposed by Dr. Payne, was replied to by Sir G. M. Humphry and Sir Henry Doulton. Dr. Bristowe proposed "The Consulting Staff of the Hospital," and Mr. Sydney Jones and Mr. John Croft responded. The Rev. J. Wale-Hicks, a former lecturer on botany, proposed "The Medical School," for which the Dean, Mr. G. H. Makins, replied. The "Old Students" toast was given by Dr. Sharkey, and Mr. N. C. Dobson of Bristol responded for the seniors and Mr. H. J. Prangley of Anerley for the juniors. The last toast, that of the "Honorary Secretaries," proposed by Mr. Pitts, was responded to by Dr. Turney and Mr. H. B. Robinson.

UNIVERSITY COLLEGE (MEDICAL FACULTY) ANNUAL DINNER.

The old and present students of the Medical Faculty of University College held their annual dinner on Oct. 1st at the Hôtel Métropole. Mr. Wm. Adams, J.P., F.R.C.S., presided, and was supported by a large and enthusiastic gathering, chiefly of the past students, amongst whom there were Dr. C. J. Hare, Dr. Russell Reynolds, Sir Wm. Roberts, Mr. William Potts, Mr. George Rigden, Dr. Grailly Hewitt, Dr. Wm. Squire, Dr. Talfourd Jones, Dr. W. V. Snow, Dr. B. H. Allen, Dr. John Cooke, &c., and almost all the present members of the College and hospital staffs. In all, 112 sat down to dinner, and several other old students, members of the staffs of other London hospitals, joined the company later in the evening. The chairman proposed, after the usual loyal toasts had been duly honoured, "Success to University College." He pointed out what an important position the College had occupied in the development of medical education in the past, and noted how well equipped it was at present for carrying on its work. The toast, which was drunk with the liveliest enthusiasm, was responded to by Mr. Christopher Heath, the representative of the medical faculty on the Council of the College. The chairman's health, which was proposed in a vigorous speech by Dr. Poore, was drunk with musical honours. The health of the secretaries, Mr. Bilton Pollard and Dr. Charles Arkle, the latter of whom was unavoidably absent, was proposed by Dr. Hare and drunk with musical honours. Mr. Pollard replied for himself and his colleague. The evening was enlivened by some excellent songs by Drs. F. T. Roberts, P. D. Turner, and C. Beevor, and in all respects the dinner was a great success.

LONDON SCHOOL OF MEDICINE FOR WOMEN.

On Oct. 1st, at 3.30 P.M., the winter session at the London School of Medicine for Women, in association with the Royal Free Hospital, was opened by an address to the students by Mrs. Dowson, L.K.Q.C.P. and R.C.S.I., lecturer on Forensic Medicine at the school. The chair was taken by the Dean, Mrs. Garrett Anderson, M.D., who briefly introduced the lecturer, and at the conclusion of the address a cordial vote of thanks to Mrs. Dowson was moved by Dr. Eliz. Blackwell, and seconded by Mr. C. W. Heaton, lecturer on Chemistry to the school. The day was wet, but a considerable number of the friends of the school were present, and afterwards took tea in the students' common room and inspected the improvements recently made in the school buildings. Among the visitors present were several native Indian ladies. The number of new students this session is thirty-seven.

LONDON POST-GRADUATE COURSE.

THE sixth term will commence on Monday, October 12th. The number of courses of lectures and demonstrations has grown so that now there are nine courses consisting of 112 lectures at the associated hospitals. The vast amount of clinical material available has enabled the lecturers to make their teaching thoroughly practical and to give the practitioners ample opportunities of examining the patients. The large number of medical men from the British Isles, as well as from the army, navy, India, the United States, and the colonies, who have attended the lectures, shows that such instruction was needed. The rapid advances made in recent years in all branches of medical science has caused many earnest workers who have been separated by long distances from the teaching centres to return in order to refresh their memories, and bring themselves abreast of the knowledge of the day. Many who have been able to compare the post-graduate teaching in continental schools, where the want of a thorough knowledge of the idioms of a foreign tongue often proves an insuperable obstacle to the English-speaking student, have declared their preference for the instruction they have received in London.

A NEW MASONIC LODGE FOR THE MEDICAL PROFESSION.

THE Æsculapius Lodge, No. 2410, having been granted a warrant by the Grand Master, the Prince of Wales, on the petition of several members of the medical profession and the assurance that the new lodge would be for the convenience of the profession, the consecration ceremony was performed on Friday, the 2nd inst., at the Café Royal, Regent-street, by Colonel Shadwell Clerke, Grand Secretary of the United Grand Lodge of England. The petitioners for the warrant, and consequently the founders of the lodge, were Brothers J. Brindley James, M.R.C.S; Lennox Browne, F.R.C.S. Edin.; F. Ernest Pocock, M.D.; Belgrave Ninnis, M.D., R.N..; G. Danford Thomas, M.D.; Thomas Dutton, M.D.; Jacob Pickett, M.D.; Crawford Thomson, M.B.; Frank Oldfield, M.D.; Anthony Nutt, L.S.A.; W. Ernest Dring, M.D.; Henry J. Frye, M.R.C.S.; H. Naunton Davies, L.R.C.P.L., M.R.C.S., L.S.A.; William Holman Kerbey, M.R.C.S.; A. Constable Maybury, D.Sc., M.R.C.S.; Bonner H. Mumby, M.D.; Wm. Henry Causton, M.D.; Hy. W. Kiallmark, M.R.C.S.; Matthew Coates, M.D., R.N.; N. R. Yorke Davies, L.R.C.P.L.; E. Hy. Ezard, M.B.; Montague S. W. Gunning, L.R.C.P. Edin.; J. Rudd Leeson, M.D.; and W. C. Blaker, M.R.C.S.

Colonel Shadwell Clerke was assisted in the performance of the consecration by Brothers Sir John Monckton, Thomas Fenn, the Rev. R. J. Simpson, Frank Richardson, and Dr. Ralph Gooding, Brother Wilhelm Ganz acting as organist. Colonel Clerke, in addressing the brethren on the motive of the meeting, stated that the lodge having been promoted for the convenience of the medical profession, its founders had a magnificent field to work upon in London, and it would be their own fault entirely if they did not out of the materials to hand in the not distant future make a

lodge of which they might be proud. They had adopted a great name for the lodge, and they had chosen a worthy brother (Joseph Brindley James) to be its first Master. The Rev. R. J. Simpson delivered the oration, in which he gave his own experience of the medical profession, that there were no men who more practised charity or self-sacrifice. At the conclusion of the ceremony of consecration Bro. Joseph Brindley James was installed as Master, Bro. Lennox Browne was appointed to act as I.P.M., Bro. F. Ernest Pocock was invested as senior warden, and Bro. Belgrave Ninnis, as junior warden. The other officers were: Dr. Danford Thomas, treasurer: Dr. Thomas Dutton, secretary; Dr. Pickett, senior deacon; Dr. Crawford Thomson, junior deacon; Dr. Frank Oldfield, director of ceremonies; Mr. Anthony Nutt, inner guard; Mr. W. Ernest Dring and Mr. Henry J. Faye, M.R.C.S., stewards; Dr. E. H Ezard, organist. The proceedings terminated with a well-served banquet.

SOCIETY FOR THE STUDY OF INEBRIETY.

A QUARTERLY MEETING was held in the rooms of the Medical Society of London on Tuesday last. The President, Dr. Norman Kerr, called attention to the remarkable growth of public opinion in support of more drastic legislation for the care and treatment of inebriates. There existed a very general agreement in favour of compulsory power to receive and detain such as have lost all power of voluntary application for admission to a home for inebriates for curative purposes.

A paper was read by Dr. Wynn Westcott, deputy coroner for Central London and Middlesex, upon Alcoholic Poisoning in London and Heart Disease as the Fatal Result. After referring to two previous sets of statistics compiled by him—one on alcohol in relation to the general mortality, and the other in special reference to alcohol as a cause of sudden death—Dr. Wynn Westcott gave a summary of the results of a tabulation of 1900 inquests held in London by himself. Of these cases two-fifths were children and young persons under sixteen years of age; the remaining three-fifths, or 1150, supplied 235 cases in which medical evidence testified to alcohol as a direct factor in causing the death; this gives a proportion of 1 death due to alcohol in every 4·5 cases—a rise in percentage since 1888, when the proportion was 1 in 5·25 cases in the same district of London. Of these deaths due to alcohol, 38 were suicidal, 47 accidental, and 170 from natural (or unnatural) causes. The point especially dwelt upon was that of this last class; 73 died of syncope due to fatty disease of the heart, leaving only 97 to the account of all other diseases; and again, of all the deaths due to syncope, there was proved alcoholic excess in more than one-third of the cases. Dr. Wynn Westcott looked upon alcoholic intemperance as the most frequent and important of all the causes of fatty degeneration of the heart—a disease very difficult to diagnose and still more difficult to cure.

F. A. A. Rowland, Esq., Solicitor of the Supreme Court, read a paper on the Principle of Compulsion as relating to Inebriety, in which he laid down that legal restraint in the case of disease must depend upon its peculiar circumstances. Even if inebriety were regarded simply as a vice, how far was the State justified in temporarily depriving the inebriate of his liberty in the public interest? A liar was left at full liberty, while a thief was imprisoned because experience had taught that property and civilisation could be preserved only by the legal restraint of thieves. In the United States and some of our colonies, as in France, inebriates (in France other offenders also) could be restrained. Here, an inebriate could be detained in a retreat for any period (not exceeding twelve months) which he had signed for before two justices. The victim's consent was essential, yet in many cases the will-power has been so impaired as to render his voluntary assent impossible. For the poor the present law was inoperative. On the whole, Mr. Rowland believed there ought to be a compulsory power, and that provision should be made for the poor. There might be some simple process by which the friends of the victim might apply to a county court judge in his private room, the judge having power to compel the attendance of medical and other witnesses. Government retreats might have similar powers to the Board schools in compulsory education. Whether regarded as a disease or a vice, inebriety ought to be dealt with in some efficient fashion in the interest of the public and of the individual.

A discussion followed, in which Dr. H. Rayner, Mr. Jabez Hogg, Mr. Joseph Smith, Mr. F. J. Gray of Walsall, and Dr. Arthur Jamison took part.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5564 births and 3315 deaths were registered during the week ending Oct. 3rd. The annual rate of mortality in these towns, which had increased in the preceding three weeks from 16·8 to 19·0 per 1000, declined again last week to 18·4. The rate was 15·7 in London and 20·6 in the twenty-seven provincial towns. During the thirteen weeks of the quarter ending on Saturday last the death-rate in the twenty-eight towns averaged 18·0 per 1000, and was considerably below the mean rate in the corresponding periods of the ten years 1881–90. The lowest rates in these towns last week were 12·4 in Brighton and in Portsmouth, 14·4 in Cardiff, and 15·1 in Halifax; the highest rates were 25·3 in Newcastle-upon-Tyne, 26·5 in Plymouth, 27·0 in Liverpool, and 32·4 in Preston. The deaths referred to the principal zymotic diseases, which had risen in the preceding three weeks from 455 to 600, declined again last week to 502; they included 308 from diarrhœa, 53 from whooping-cough, 45 from "fever" (principally enteric), 39 from diphtheria, 31 from scarlet fever, 26 from measles, and not one from small-pox. No fatal case of any of these diseases was registered in Halifax; in the other large towns the lowest zymotic death-rates were recorded in Bristol, Huddersfield, and Birkenhead, and the highest in Hull, Norwich, Sunderland, and Wolverhampton. The greatest mortality from scarlet fever occurred in Huddersfield, from whooping-cough in Hull and Norwich, from "fever" in Portsmouth and Norwich; and from diarrhœa in Hull, Plymouth, Blackburn, Leicester, Salford, Preston, Sunderland, and Wolverhampton. The mortality from measles showed no marked excess in any of the twenty-eight towns. The 39 deaths from diphtheria included 32 in London. No death from small-pox was registered in any of the twenty-eight towns; 2 cases of this disease were under treatment on Saturday last in the Highgate Small-pox Hospital, but not one in any of the Metropolitan Asylum Hospitals. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1145, against numbers increasing from 947 to 1054 on the preceding four Saturdays; the patients admitted during the week were 169, against 137 and 122 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 145 to 182 in the preceding three weeks, declined last week to 171, and were 46 below the average. The causes of 56, or 1·7 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bristol, Nottingham, Sunderland, and in seven other smaller towns; the largest proportions of uncertified deaths were recorded in Liverpool and Salford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 15·4 and 18·8 per 1000 in the preceding two weeks, declined again to 17·5 during the week ending Oct 3rd, and was 0·9 below the mean rate that prevailed during the same period in the twenty-eight large English towns. The rates in the eight Scotch towns ranged from 12·5 in Paisley and 16·4 in Leith to 19·7 in Dundee and in Greenock and 20·3 in Perth. The 450 deaths in these towns showed a decline of 35 from the number in the preceding week, and included 35 which were referred to diarrhœa, 11 to scarlet fever, 8 to measles, 6 to whooping-cough, 6 to "fever," 5 to diphtheria, and not one to small-pox. In all, 71 deaths resulted from these principal zymotic diseases, against 61 and 86 in the preceding two weeks. These 71 deaths were equal to an annual rate of 2·8 per 1000, which corresponded with the mean rate from the same diseases

in the twenty-eight English towns. The fatal cases of diarrhœa, which had been 32 and 49 in the preceding two weeks, declined again last week to 35, of which 12 occurred in Glasgow, 9 in Edinburgh, and 5 in Dundee. The deaths from scarlet fever, which had increased from 2 to 8 in the previous four weeks, further rose to 11 last week, and included 6 in Glasgow and 2 in Aberdeen. The 8 fatal cases of measles corresponded with the number in the preceding week, and were all recorded in Glasgow. Of the 5 deaths from diphtheria, 2 occurred in Aberdeen; and the 6 fatal cases of "fever" included 5 in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 53 and 80 in the preceding two weeks, declined again last week to 66, and were 18 below the number in the corresponding week of last year. The causes of 39, or more than 8 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 21·0 and 27·5 per 1000 in the preceding two weeks, declined again to 26·6 during the week ending Oct. 3rd. During the thirteen weeks of last quarter the death-rate in the city averaged 21·1 per 1000, the rate for the same period being 17·4 in London and 16·1 in Edinburgh. The 177 deaths in Dublin during the week under notice showed a decline of 11 from the number in the preceding week, and included 17 which were referred to diarrhœa, 5 to "fever," 4 to whooping-cough, and not one either to small-pox, measles, scarlet fever, or diphtheria. In all, 26 deaths resulted from these principal zymotic diseases, equal to an annual rate of 4·1 per 1000, the zymotic death-rate during the same period being 2·1 in London and 2·6 in Edinburgh. The fatal cases of diarrhœa, which had been 14 and 20 in the preceding two weeks, declined again to 17 last week. The deaths referred to different forms of "fever," which had been 4 and 3 in the preceding two weeks, rose to 5 last week. The 4 fatal cases of whooping-cough were within one of the number in the previous week. The 177 deaths in Dublin included 50 of infants under one year of age, and 41 of persons aged upwards of sixty years; the deaths of infants showed a decline, while those of elderly persons exceeded the number in any recent week. Three inquest cases and 5 deaths from violence were registered; and 52, or nearly a third, of the deaths occurred in public institutions. The causes of 24, or nearly 15 per cent., of the deaths in the city were not certified.

CALCUTTA AND ITS SUBURBS.

Dr. W. J. Simpson, the health officer for Calcutta, in his memorandum for the month of June last, states that the total number of births in that month was 541, against 622 in the preceding month, giving an annual ratio of 13·9, against 17·2 per 1000 of the population. This is less than in seven years of the corresponding figures of the past decade, and is also below the decennial average by 3. The total number of deaths (exclusive of stillbirths) registered in June was 770, against 839 in the preceding month, showing an annual ratio of 19·9, against 23·2 per 1000 of the population. The monthly total exceeds seven of the corresponding figures of the past decade, and also surpasses the decennial mean by 16. There were 33 deaths from cholera, against 68 in the preceding month. This is less than all the corresponding numbers of the last ten years, excepting 1886, and is also less than the decennial average by 55. The number of deaths from fever and diarrhœa was in excess of the corresponding figures of the decennial average. With regard to local distribution of diseases, Hastings, Shampooker, and Puddopooker were the sections showing the highest death-rates, while the death-rates in the sections Park-street and Waterloo-street were below the average. In the amalgamated area of suburbs the birth-rate for the month of June was in the annual ratio of 13·4, against 22·6 in the preceding month per 1000 of population; and the total number of deaths registered was 476, against 617 in the preceding month, giving an annual ratio of 26·6, against 44·0 per 1000. Of these deaths there were 31 from cholera, 188 from fevers, 64 from bowel complaints, 39 from tetanus. According to the latest weekly return in our possession—viz., that for the week ending Aug. 22nd last—the total number of deaths in the town of Calcutta was 192, against 201 and 187 in the two preceding weeks. Among the deaths there were 3 from cholera, 1 from small-pox, 16 from tetanus, and 88 from fevers and bowel complaints. The general death-rate was 21·5 per 1000 per annum, against 21·1, the mean of the last five years. The total number of deaths registered for the amalgamated area of suburbs during the same week was 137, as against 116 and 106 in the two preceding weeks, and somewhat higher than the corresponding week of last year, There were 7 deaths from cholera, none from small-pox. The general death-rate for the week was 33·2 per 1000 per annum, against 30·7, the mean of the last five years. The general death-rate of the combined area is equal to 25·1.

THE SERVICES.

ARMY MEDICAL STAFF. — Surgeon-Colonel Stewart Aaron Lithgow, M.D., C.B., D.S.O., to be Surgeon-Major-General, vice G. M. Slaughter, retired, Brigade Surgeon Lieutenant-Colonel Arthur Charles Gaye to be Surgeon-Colonel, vice S. A. Lithgow, M.D., C.B., D.S.O., and Surgeon-Lieutenant-Colonel Charles White to be Brigade Surgeon-Lieutenant-Colonel, vice A. C. Gaye (all dated Sept. 16th, 1891); Surgeon-Captain Whitley Bland Stokes, M.B., F.R.C.S.I., from half-pay, to be Surgeon-Captain, vice E. McN. Woods, M.B., deceased (dated Sept. 26th, 1891).

ARMY MEDICAL RESERVE OF OFFICERS. — Surgeon-Major (ranking as Major) John Percy Waddy, having resigned his Militia appointment, ceases to be an Officer of the Army Medical Reserve of Officers (dated Oct. 7th, 1891).

ARMY MEDICAL SCHOOL.—Surgeon-Captain H. Whitehead, Army Medical Staff, has been appointed Assistant Professor of Surgery at the Army Medical School at Netley.

NAVAL MEDICAL SERVICE. — The following appointments have been made at the Admiralty:—Surgeon James H. Dawe, to the *Vernon* (dated Oct. 8th, 1891); John W. Gill to be Surgeon and Agent at Downderry, and Robert T. Thomas to be Surgeon and Agent at Looe (both dated Oct. 5th, 1891); Mr. William J. Mullaney to be Surgeon and Agent at Belmullet (dated Oct. 2nd, 1891).

VOLUNTEER CORPS.—*Rifle:* 1st Volunteer Battalion, the Suffolk Regiment: William Vernon, Gent., to be Acting Surgeon (dated Oct. 3rd, 1891).

Correspondence.

"Audi alteram partem."

"A THEORY OF SEX."

To the Editors of THE LANCET.

SIRS,—According to Mr. Andrew Wilson's theory in THE LANCET of Sept. 26th sex is determined by the condition of the ovule at the time when it comes into contact with the spermatozoon; and this he holds is greatly influenced by the time which elapses between the extrusion of the ovule from the ovary and its fertilisation. If insemination occurs before a menstrual period, so that the spermatozoon meets the ovule high up, the nutrition of the ovule is held to be still active (anabolic), and a male embryo results; if insemination occurs after the menstrual period, the ovule is met lower down when it has travelled further and become wayworn (katabolic), and a female conception follows; but should insemination happen (as can only rarely be the case) in the middle of the menstrual period, then the ovule is in "stable equilibrium," and a hermaphrodite is the correspondingly rare issue. There is something so captivating in the Aristotelian simplicity of this theory that physiologists would hail it with gladness were it only supported by results. It is difficult, as Mr. Wilson says, to collect sufficient evidence in the case of man, but we have no reason to suppose that man differs in this respect from other mammals. Stockbreeders adopt a pretty uniform rule in covering animals. A cow's season lasts about twenty-four hours, and it is the practice to endeavour to obtain the services of the bull about twelve hours after the season has come on. According to Mr. Wilson's law this

ought to result in a race of hermaphrodites, but such is not the case; male and female calves are fairly mixed. Occasionally it is found that the twin of a bull calf is a "free-martin," and then we have possibly the rare exception that proves Mr. Wilson's rule. Again, if a ram be turned into a sheepfold he will cover each ewe just at the beginning of her season; and stallions in the New Forest will take the mares in the same way, just as their season comes on; but the races of sheep and horses do not die out, as they would speedily do if the consequence of this uniformity of custom were to produce one sex only. The time of insemination in these cases does not support Mr. Wilson's theory, but in that theory does he not go somewhat unnecessarily out of his way in reversing the theory of Geddes and Thomson? Their view he thus summarises: in a katabolic habit, when waste exceeds repair, males preponderate; in an anabolic habit, with nutrition in excess of waste, we have a majority of females. Since the great body of facts support Geddes and Thomson, why should Mr. Wilson elect to put his theory against theirs, when, had he thought for a moment, he might have made it agree with their statistics? Surely when the ovule has had far to travel and has become wayworn, the spermatozoon can have had but a little way to come and must be still hale and vigorous. And, on the other hand, when the ovule is met high up and is fresh and hearty, the spermatozoon must have toiled far and have become tired and weary. Had Mr. Wilson based his theory on the nutrition of the spermatozoon, instead of on that of the ovule, he would have found himself in accord with Geddes and Thomson. A katabolic spermatozoon would beget a male, an anabolic one a female. But he forgets the spermatozoon altogether; he thinks only of Penelope, and leaves Ulysses tossing unheeded on his raft.

The determination of sex rests on a broader basis than the date of insemination, and is regulated entirely by the requirements of the species. The existence of the sexes is not essential to reproduction, and many highly organised species propagate themselves without sexual concourse. The Cynips kollari, for example, which produces the marble galls so abundant at this season on oak trees, has no male, and goes on propagating itself in unbroken succession in the female line. Other hymenoptera which have two generations in the year have a winter generation which is female only and a summer generation which is sexual; the Spathegaster baccarum emerges male and female from the currant gall of the oak in June; after the nuptial flight the female deposits her eggs in the under-surface of the young leaves, and over them rises a totally different gall, the common spangle, from which emerges next April the Neuroterus lenticularis in the female sex only; when she has pricked the young buds we have the currant galls formed again. These two species are linked together in one generation cycle. Others of the hymenoptera which propagate habitually by conjugation of the sexes, still retain the power of reproducing themselves in the female line when the life and continuance of the species is threatened and parthenogenesis is called for to save the race. The queen bee is fertilised by the drone only on the wing, and if fertilisation be prevented by depriving her of her wings just before the nuptial flight, she will nevertheless go on laying her eggs; but these eggs, instead of producing females, as they would have done for months if fertilised, will produce for a time only males—the need of males by the species having been in some way realised, males are produced.[1]

But if sex is not actually essential, it is an extremely valuable aid to a species in the struggle for existence. When the germ plasms in one species are derived from one parent, and in another species from two parents, it stands to reason that the variation in the descendants of the sexual generation will be infinitely greater than in the asexual; and the greater the variation in the progeny, the greater will be the chance of survival in the struggle for existence. It is therefore of importance to a sexual species *to maintain both sexes;* and just as in the case of the bee, if either sex is specially called for, that sex is reproduced in greater abundance, so as to secure the continuance of the species. If a young ram be put to a flock of five-year-old ewes, 70 per cent. of the lambs will be female and 30 per cent. will be male, and there will be a goodly number of twin births. If an old ram be put to a flock of young ewes, 70 per cent. of the lambs will be male and 30 per cent. female, and there will be no twin births. But if the probability of life in both parents be equal, and a five-year-old ram be put to five-year-old ewes, the sexes will be about equally represented in the offspring. If to either of these conditions we add variations in the quantity of food and in the ease with which it is obtained, we have a further set of modifying conditions. When food is abundant and easily obtained, large flocks are possible and female issue preponderates; when mountain pasture is scarce and long distances have to be traversed the male sex is increased. A study of these facts appears to lead to the conclusion that anything in the parents or in the environment which declares the production of either sex in greater abundance to be necessary for the welfare or extension of the species, makes itself known through the parents, and so modifies the constitution of the male and female pronuclei as to produce more of the sex required. It is quite possible, where insemination at the outset of the menstrual period has long been the rule in a species, that delaying it unusually might give an impression of scarcity of males, and male births would result, which would accord with the Geddes, but not with the Wilson, theory.

It seems difficult to describe the mechanism by which constitutional weakness and the infirmities of age are stamped on the ovule and spermatozoon better than by the term "katabolism" and the opposite condition by that of "anabolism." It is clear from the facts I have given with regard to the age of rams and ewes that some physical changes are caused by age and environment, which affect equally the male and the female nuclei, and have been impressed upon each before insemination took place.

I am, Sirs, yours truly,

Wilton, Salisbury. CHARLES R. STRATON.

[1] These cases of agamous reproduction, either permanently or temporarily occurring in certain species, are very simply explained by Weissman. In them the second or reducing division does not take place in the female germ plasms, and no second polar body is extruded from the ovule. When a reducing division takes place and half the germ plasms of the female are extruded, their place is made good by half the germ plasms of the male on the union of the male and female pronuclei. When reproduction is agamous, the whole of the female hereditary germ plasms are necessarily retained.

To the Editors of THE LANCET.

SIRS,—Mr. Wilson's paper in your last issue is of extreme interest to those who have given this subject consideration. It must, however, remain a matter for conjecture whether or no the ovum is relatively the stronger germinal element; and even although it should be the stronger, I do not see why it should bias the embryo towards a male product. I should prefer to consider that the germinal elements (ovum and spermatozoon), after impregnation, had the effect of biasing the embryo towards their own sex, so to speak—the ovum towards the female, the spermatozoon towards the male,—and that the question of sex was really determined by their relative vitality at the time of impregnation, irrespectively of any definite time. Now this relative vitality will depend on a variety of circumstances; it will depend no doubt on the time elapsed since the escape of the elements from their respective producing organs, the ovary and testis. It must depend also on the state of nutrition of the parents. If either of the parents be diseased or in a low state of nutrition from any cause, his or her germinal elements are bound to suffer in proportion. Thus the spermatozoon of a healthy male may impregnate the badly nourished ovum of a sickly female, even shortly after its emergence from the ovary in Mr. Wilson's pre-menstrual epoch, and its vigorous strength will develop a male. And suppose impregnation to take place between these two elements, in Mr. Wilson's post-menstrual period there is more probability than ever of a male product resulting. Again, I should imagine, a healthy, vigorous ovum will carry all before it. Meeting an unhealthy spermatozoon (or one which has been some time about the female organs) pre-menstrually, a female will result from its superior vigour; very probably also had this same ovum (having by this time itself lost in vitality) met post-menstrually the same unhealthy male element it might still have retained sufficient vigour to determine a female product. Again, the relative vitality will depend on the state, healthy or otherwise, of the parts traversed by the respective elements. The question, however, is unfortunately involved in obscurity, and one can only speculate on such a difficult question. In conclusion, then, I will briefly state that in my opinion the question of sex is determined by the relative vitality of the germinal elements when impregnation takes place, irrespectively of

menstrual epochs, and that each element will bias the embryo in the direction of its own sex. It is wrong, no doubt, to talk of these elements having a sex, but I am writing on the supposition that each element has an inherent power, by which, when the complementary element is met with, the sex is determined in favour of the stronger.

I am, Sirs, yours truly,

LOUIS E. STEVENSON, M.B.

Jedburgh, N.B., Sept. 28th, 1891.

"RECURRENCE OF SYMPTOMS AFTER GASTRO-ENTEROSTOMY."

To the Editors of THE LANCET.

SIRS,—In discussing this case clearly we are dealing merely with possibilities, which it would be idle and unprofitable to follow further, as the pathological specimen alone can demonstrate whether the artificial gastro-jejunal opening has closed or not. At a future date, however, I trust Mr. Larkin will communicate in your columns what actually has taken place in his most interesting case.

Mr. Larkin has, I fear, misunderstood me, as he says my main suggestion is that "the *contraction* occurred at the opening made in the peritoneal layers of the transverse meso-colon and great omentum; what I said was *constriction*—quite a different thing from *contraction*—of the jejunum may have taken place at the aperture in the transverse meso-colon. It is to this point I wish to refer, and the clearest way of expressing myself will be to give the reasons for my discontinuing to perform the operation by this method. By referring to Mr. Larkin's admirable diagrams my meaning will be more readily understood.[1] By drawing a loop of the jejunum through an opening in the meso-colon and great omentum we have two portions of intestine closely approximated, and firmly fixed by peritoneal cicatrisation to an aperture in the meso-colon (necessarily of rather narrow dimensions) at the one end, and to the point on the stomach which the surgeon may select at the other extremity of the loop at the other end; in Mr. Larkin's case at the cardiac end and, judging from the diagram, rather high up. Between these two points the intestine passes through an opening in the great omentum. The two portions of intestine thus run nearly parallel to each other throughout the whole loop. The dangers of the operation performed in this manner are, I think, threefold:—1. There is actual danger of nipping of the intestine by peritoneal cicatrisation and constriction at the aperture at the meso-colon. This evidently did not occur in Mr. Larkin's case, as the biliary and pancreatic secretion passed readily. 2. There is danger of kinking of the intestine at the gastric opening on account of the sharp curve which takes place. This accident did not apparently occur. 3. This is purely a mechanical danger. The loop of intestine is, as we have seen, fixed at both ends—viz., stomach and meso-colon. The physiological action of the stomach in health, we are taught, is, when empty, the greater curvature is directed downwards, but when the viscus is distended it rotates upon the lesser omentum, and the greater curvature is directed forwards, while the anterior surface is directed upwards. This action, then, must of necessity cause considerable traction upon the loop of intestine fixed at the two points, as I have described. The result of this is to temporarily contract, and possibly close, the opening between the intestine and stomach, especially when the loop is united high up on the cardiac end. The lumen of the intestine would be still patent for the flow of the biliary and pancreatic secretions. A similar danger may occur from a loaded transverse colon; if Fig. 1 is carefully studied it will be seen how readily constriction may occur from this cause. For these reasons I now invariably adopt the method of performing gastro-enterostomy by turning a loop of the jejunum round the transverse colon. I am not saying that any of these factors were responsible for the obstruction which occurred in Mr. Larkin's case, as it is impossible to decide upon what we have not seen, but I place them before the profession for what they are worth, and can only say they are conclusions drawn, not hurriedly or upon theoretical grounds alone, but upon actual practical experience.

I am, Sirs, yours very faithfully,

FREDK. BOWREMAN JESSETT.

Upper Wimpole-street, Oct. 3rd, 1891.

[1] THE LANCET, Sept. 19th, p. 667.

THE USE OF ANTISEPTICS.

To the Editors of THE LANCET.

SIRS,—As a practitioner of perhaps the least important branch of surgery, it seemed hardly fitting I should take upon myself to challenge Mr. Lawson Tait to a full defence of the position which he has assumed on the above question; but, in common, I am sure, with a large number of your readers, I felt very much inclined on perusing his lecture to dispute the sweeping generalisations which are criticised by Mr. Adamson in THE LANCET of to-day. The surgery of the teeth, and the treatment of inflammatory conditions within and around them, only represent in miniature what is displayed on a larger scale in general surgery; but the relatively simple structure of the organs and their exposed position render the processes of dental disease and the effects of treatment more easily and correctly observable. I will simply affirm what will be corroborated by every dental practitioner: that the antiseptic method has rendered amenable to treatment a vast class of cases which before the introduction of this method were extremely unsatisfactory. Cases of teeth with putrid pulp canals and chronic abscesses or fistulæ through the alveolus and gum—cases entirely analogous to surgical conditions affecting wider areas in other parts—yield at once to antiseptic measures. Such cases before the antiseptic system was understood and practised formed the opprobrium of dental surgery; they are nowadays curable with almost complete certainty. Although there can be no question as to the success of Mr. Tait's practice in abdominal surgery, it is difficult to see how on scientific grounds he can support his views. Indeed there seems something contradictory in his statements. He insists upon perfect cleanliness. But scientific cleanliness cannot be produced or maintained without antisepticism. From the surgical point of view, the presence of micro-organisms constitutes uncleanliness; without them putrefaction and fermentation—the production of septic conditions—are impossible. In order to preserve a wound scientifically clean, organisms must be excluded; to maintain it clean, they must if they enter be destroyed or rendered sterile. The only effectual way to do these things in the present state of our knowledge is by the use of antiseptics.

I remain, Sirs, your obedient servant,

Wimpole-street, Oct. 3rd, 1891. HENRY SEWILL.

To the Editors of THE LANCET.

SIRS,—I am not disposed to reply in detail to Mr. R. O. Adamson's very numerous inquiries, because the space necessary would mean more columns of THE LANCET than you could place at my disposal; because all of the surgical incidents specified are such as have been outside my line of practice for more than twenty years; and specially because the late Mr. Sampson Gamgee, in his work on the "Treatment of Wounds," answered them many years ago. My condemnation of the antiseptic doctrines and the antiseptic practice came upon Mr. Adamson as "startling" only because he graduated in 1889. A very slight research into the literature of the subject for the fifteen years preceding that date will at least cause my views no longer to startle him.

Mr. Adamson's letter reminds me that I may have a communication to make to THE LANCET in a week or two concerning this much vexed question of antiseptics which, I venture to think, will probably be startling to the Court of Examiners of the Royal College of Surgeons of England.

I am, Sirs, yours obediently,

Birmingham, Oct. 2nd, 1891. LAWSON TAIT.

THE USE OF ATROPINE IN THE ADMINISTRATION OF CHLOROFORM.

To the Editors of THE LANCET.

SIRS,—I was surprised to find that no one made any remarks at the Bournemouth meeting of the British Medical Association about the use of atropine, with a view to annul the dangers attending upon the administration of chloroform. So far back as 1868 Dr. Harley pointed out the applicability of atropine in all cases where there is lessening of the sympathetic influence, as in syncope, shock, collapse of cholera, and risk of the heart stopping under the influence of chloroform &c.

For a long time, especially in France, atropine has been employed more particularly as an adjunct to morphia, when the latter is needed to relieve pain &c.; and Dr. Brown-Séquard pointed out that the nausea and vomiting that sometimes attend the hypodermic use of morphia may be done away with by the addition of atropine to the solution. So we have for years had a fair indication of the applicability of atropine and morphia as a means of lessening the risk attending upon the administration of chloroform. Wishing to satisfy myself of the action of hyoscine on the pneumogastric, I came to the Continent to avoid the anti-vivisection laws, and since being here the extreme kindness of the surgeons has enabled me to satisfy myself that the dangers of ether and chloroform can be greatly, if not entirely, removed by the injection of one centigramme of hydrochlorate of morphia and one milligramme of sulphate of atropia some twenty-five minutes previously to their administration in adults. Much less of the anæsthetic is needed to produce anæsthesia, and the danger from its toxic effects is avoided. There is often no stage of excitement perceptible; salivary secretion is checked, an important point in ether inhalation, as swallowing and vomiting do not occur, but above all, the temporary suppression of the inhibitory action of the vagus over the heart removes the risk of its reflex arrest. Dr. Aubert, to whom is greatly due the credit of having practically introduced the mixed method of inducing anæsthesia, says that the atropine, as it is given beneath the skin, does not affect the pupil. In several of my cases, however, I have noticed a marked dilatation, and in those cases the increased rate of the cardiac pulsations has continued for several hours; yet generally, I think, the pupil may be taken as an aid in regulating the administration of the anæsthetic. For my part, I have found that by administering nitrous oxide gas immediately before the ether, either after Clover's method or that of Brain, the patient having been previously prepared as above described (the atropine and morphia injection), the most rapid surgical anæsthesia can be satisfactorily attained. Personally I am now in a great measure relieved from that painful anxiety attending the use of anæsthetics which an experience of over twenty years had not diminished. So far as I can discover, only one doubtful accident has occurred under the mixed method, and as many thousands of operations must now have been performed during its use, I think that we may consider its success as established. I am, Sirs, yours truly,

Sept. 19th, 1891. G. COCKBURN SMITH.

THE SUGGESTED HIGHER DENTAL DIPLOMA.

To the Editors of THE LANCET.

SIRS,—May I be permitted to say how perfectly I agree with Mr. Sewill, in the opinion he has expressed concerning the suggested higher dental diploma. Undoubtedly the present examination for the licence in Dental Surgery is a sufficient test of special knowledge, and any higher professional status to which the student may aspire can be fully realised in the attainment of a degree in Medicine, or in the acquisition of the Fellowship or Membership of the College of Surgeons. Of late years many of the best students of dental surgery have continued their course of study in the larger field of medicine, and have obtained one of these higher qualifications in addition to the special diploma. In the not far distant future I would venture to hope that few will be content with the mere licence to practice dentistry, and that all will desire to rank as members of the medical profession, although they may elect to confine their energies to a special subject.

I am, Sirs, yours faithfully,

Wimpole-street, W., Oct. 6th, 1891. FRANCIS FOX.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Opening of the University of Durham College of Medicine.

THE opening of the Durham College of Medicine at Newcastle took place on the 2nd inst. Dr. Heath, the president, took the chair, and Lord Londonderry presented the prizes and addressed the students. The mayor and sheriff of the city and many of our leading citizens attended, while there was a numerous audience of ladies and the general public.

Sunderland.

The foundation stone of the new isolation block and mortuary at the Sunderland Infirmary was laid by the Bishop of Durham on the 28th ult. The isolation block consists of two wards and their annexes, for the purpose of isolating or observing doubtful cases. These two wards are as much disconnected as if they were in separate buildings. The mortuary block consists of a post-mortem room, with marble terazzo floor as well as marble slabs and sinks. Around the sides of the room are six receptacles for dead bodies, each having in front a spring shutter, so that the body desired to be seen by the friends of the deceased will be alone visible. The entire cost of the buildings, which are most elaborate and complete, will be from £2700 to £3000, and they have been presented to the infirmary by Miss E. J. Forster.—The infant mortality at Sunderland last week was very high; there were in all 83 deaths in the borough, showing a death-rate of 33 per 1000. Of these, 49 were cases of children under the age of five years, or a rate of 19·5 per 1000 for infants alone. Diarrhœa and affections of the respiratory organs would appear to be the principal factors in thus raising the infantile mortality.

South Dock North-Eastern Railway Ambulance Class.

Surgeon-Major Hutton, organising secretary of the St. John Ambulance Association, gave an address to this class last week. There were representatives from the North-Eastern Marine Engineering Company, and from the workmen of the River Wear Commissioners, who intend forming classes during the coming winter. After the lecture a demonstration was given of first aid, which met with the lecturer's hearty approbation.

Stockton.

A Local Government inquiry has been held at Stockton last week, the corporation seeking to borrow £10,000 for a site, and for the erection thereon of an infectious diseases hospital. It was shown by the promoters that the borough has nearly 50,000 inhabitants. In past times they had been dependent upon Middlesbrough, but now the Middlesbrough officials refuse to receive patients from Stockton suffering from small-pox, scarlet fever, or typhoid fever. The medical officer of health, Mr. Clegg, also gave evidence in support of the scheme, which is to be further reported upon.—The Stockton branch of the National Society for the Prevention of Cruelty to Children have taken premises which the Town Council have certified under the by-laws of the Act as a "place of safety" for children, and which is to be used as a refuge for children who ought to be removed from undesirable surroundings, but for whom the workhouse or the police station is not a desirable shelter.

Cumberland.

Miss Thomason Nelson, late of Moor-row, Cumberland, has left, amongst other charitable bequests, £1000 to the Cumberland Infirmary, Carlisle, £500 to the Cumberland and Westmoreland Convalescent Institution at Silloth, and £500 to the Border Counties Home for Incurables, Carlisle, all free of legacy duty.

Mr. Gladstone's Visit to Newcastle.

Mr. Gladstone arrived in Newcastle on Thursday night, having come on the same day straight through from Perth. He drove direct from the Central Station to the Newcastle Mansion-house, and during most of this carriage journey his head was uncovered. The next evening he addressed an immense meeting in the Tyne Theatre. His time until the next morning, when he again addressed a vast meeting, was well filled up receiving friends, deputations, and keeping up his correspondence. When he left the Central Station on Saturday, again bareheaded, he was apparently as well as when he arrived; his voice was strong and well heard over all the buildings where he spoke. Occasionally, indeed, in some of his higher tones there was noticeable a slight breakdown. Of this he seemed to be immediately aware, as he had recourse to his well-known egg mixture, and with marked benefit. This slight break in tone is probably due to mere dryness produced by congestion of the fauces causing temporary dryness or exhaustion of the store of mucus in the tonsillar follicles. The meetings were largely attended by members of the

profession, and they acknowledged that they saw in Mr. Gladstone's physique—taking into account that his age is now approaching eighty-three—the demonstration of a marvel.

Newcastle-on-Tyne, Oct. 7th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS)

Appointment of a Physician to the Edinburgh Royal Infirmary.

As already noticed, Dr. Claud Muirhead's term of office as one of the physicians to the Royal Infirmary of Edinburgh has expired, and it became the duty of the managers, at their meeting on Monday last, to fill up the vacancy thus created. Dr. Brakenridge becomes senior ordinary physician, and Dr. Andrew Smart, who was the senior assistant physician, has been raised to the dignity of an ordinary physician. This gives him one of the general wards, and he has also to take part in the course of lectures on clinical medicine delivered during the winter and summer sessions. Dr. Smart's promotion makes Dr. James the senior assistant physician, and creates a vacancy on the list of assistant physicians. It may be observed in this connexion that there is an opinion, which finds a certain amount of favour, that it is not altogether a good plan to promote assistant physicians or surgeons to the charge of wards purely on the ground of seniority, but that it would be advantageous to the hospital, to the school, and even to the assistants themselves, were the promotion made by selection. The present method, which has been made more or less sacred by custom, prevents heart-burnings and jealousies, but it is hardly a stimulus to continued work, and does not necessarily ensure the advancement of the most competent man.

The Funds of the Edinburgh Royal Infirmary.

The managers of the Royal Infirmary, in acknowledging the legacies left to the institution during the year ending Sept. 30th, point out that, owing to the necessity of building a new nurses' home, additional operating theatres and wards, the income of the past financial year will fall much below the expenditure. The cost of these additions will be not less than £15,000. The new theatres and wards are a great advantage to the staff, the students, and the patients; while the new nurses' home is nearly roofed in, and ought to be ready for occupation in a few months.

Health of Edinburgh.

The mortality last week was 78, and the death-rate 16 per 1000. Diseases of the chest caused 25 deaths, and zymotic diseases 4, of which 2 were due to whooping-cough. The intimations for the week were typhoid fever 3, diphtheria 3, scarlatina 22, and measles 3.

Edinburgh Public Health Committee.

At the meeting of the Edinburgh Town Council on Tuesday last the Public Health Committee intimated the appointment of Dr. Claud Muirhead as visiting physician to the City Hospital. It was also intimated that the number of patients in the hospital that morning was 155, 82 of whom were adults and 73 children. These included 74 cases of scarlatina and 22 of enteric fever. In connexion with a letter from one of the city practitioners as to remuneration in connexion with cases of accident &c., the committee recommended that in future the chief constable should provide his men with printed forms requiring the attendance of medical men.

Society of Medical Officers of Health.

A meeting of this Society was held in Perth last week. The meeting considered the question of securing uniformity in the tabulated abstracts of vital statistics published in the reports of medical officers, and the question was remitted to the Council. On the motion of Dr. Nasmyth the Society decided to memorialise the University Commission to the effect that the present arrangement, by which a combined course of medical jurisprudence and public health of three months' duration was sufficient for graduation, was quite inadequate, and suggesting that a separate course of lectures on Public Health of three months' duration should be made compulsory. A deputation was appointed to wait on the Secretary for Scotland and the Lord Advocate regarding the difficulties in securing the proper scavenging of villages, and the desirability of making provision for the formation of scavenging districts analogous to the water-supply and drainage districts; the same deputation was empowered to urge the necessity of extending to Scotland the provisions of the Infectious Diseases (Prevention) Act of 1890, and the Public Health Acts Amendments Act, 1890, which at present are only operative in England and Ireland.

Supply of Anatomical Material in Glasgow.

The committee of the city parochial board appointed to inquire into the alleged illegal traffic in the bodies of paupers have reported that during the year September, 1889, to August, 1890, 113 bodies had been taken for dissecting purposes which were supposed to have been interred. The committee also recommend that no more removals of bodies be allowed meantime to take place from the poorhouse for anatomical purposes, but that every body be taken to the cemetery and regularly interred, the governor being instructed to see that this is strictly carried out. In the discussion of this last recommendation, Dr. Lapraik, a medical member of the board, rendered valuable service, and succeeded in getting passed a motion to the effect that the board carry out the interment of bodies in strict harmony with the Anatomy Act. He succeeded even in preventing delay of consideration of the recommendation for a month, as some desired, pointing out that even such a short arrest in the supply of anatomical material would be a most serious affair for the schools. He maintained the judicious and useful character of the Act, and urged the board to do their simple duty to the medical schools, which were to open in a few days. It is matter for satisfaction that common sense has prevailed in the various boards, where at first popular clamour and panic seemed to have driven many estimable officials to unreasonable action. The statement and appeal in THE LANCET of last week had much to do in forming and guiding public opinion in the matter. The driver Daniel's case will come up for trial soon, when a complete and public statement of the manner in which the Anatomy Act works in Glasgow will be obtained.

Nursing at the Glasgow Royal Infirmary.

While the committee of managers of the Royal Infirmary are engaged in preparing their report on the treatment of their nurses (a task which is evidently one of some difficulty, as it has occupied now five weeks) a veteran manager, Mr. William McEwen, has joined in the fray by sending a long and, in some respects, interesting letter to a daily paper on the changes in the nursing staff during his term of office. Mr. McEwen's effort is very skilfully handled in a rejoinder published by Dr. Arthur Browne, senior resident in the infirmary. If Mr. McEwen's hostility to the medical staff be discounted, and his references to them overlooked, his letter has much interest especially of a historical kind, though even here there is room to suspect that his picture of the nurses' lot prior to 1864 is much over-coloured. He says that before he took his reforms in hand (1864) the nurses had no regular dinner ever provided for them. They got a herring one day, a bit of cheese another, an egg upon the third, and picked up on other days anything that was to be had or was left over of the provisions for the patients. They either slept in the wards or in a room above the kitchen, where a lot of them were huddled together. Their wages were 15*s.* to 17*s.* a month. There were then fifty-nine nurses, and eight women employed as cleaners. The nurses had all the floors to scrub and their own clothes to wash. At present, with the same hospital accommodation for patients, there are 107 nurses and thirty-six cleaners; the nurses are relieved of all menial work and get their clothes washed, and sleep in a separate nurses' home. The whole amount paid as wages formerly was £1495 13*s.* 9*d.*, whereas last year it was £4650 10*s.* 9*d.* The food then cost £5783 12*s.* 6*d*; last year it was £9995 4*s.* 6*d.* There are over twenty nurses at present in the house who have been from thirteen to twenty years in constant service in the wards, and about as many more who have been from three to thirteen years. Mr. McEwen refers at some length to the excellent conditions under which the nurses now live; but as these conditions and the manner of their administration are precisely the things now so bitterly complained of, discussion of them is better left over till the appearance of the committee's report. One rather gruesome rule Mr. McEwen takes credit for should be altered at once; he made it the practice, which is still

observed, that if a patient died during the night (after 9 P.M.) the body was screened off and "decently covered up," but kept in the ward till between six and seven next morning, when the porters came to remove it. It thus became possible that a man or a nervous woman or girl might have to spend an entire night within two or three feet of a dead and possibly malodorous body, probably after having watched the process of dying throughout the previous day. Something better than this, and quite as "decent," might surely be devised.

Glasgow University Club.

The premises which have been acquired for this Club at 202, Bath-street, were thrown open to members on Tuesday evening. They consist of a large dwelling of four storeys and basement. On the ground floor are commodious writing and card rooms and a lavatory. The dining-room is on the first floor, and is of moderate dimensions. It measures 33ft. by 30ft., and will accommodate fifty persons to dinner. On the same floor is the smoking-room. On the second floor the principal apartment is the billiard-room, with two tables. There is also a members' bedroom, besides two on the flat above—three in all. The kitchen and bedrooms for the staff are on the basement. The movement which has resulted in the formation of this club only took shape in the spring of the present year. Already the membership amounts to close upon 500. The club, it is believed, will be very popular with former university men, and country members in particular are expected to find it a convenient place for intercourse with old friends when visiting the city. About a third of the members up till now are resident in the country, and two-thirds in the city. The medical element is very prominent in the club—indeed, medical men form the largest section of its members. Dr. Joseph Coats, chairman of the club, presided at the opening ceremony.

Faculty of Physicians and Surgeons of Glasgow.

The annual meeting of the Faculty for the election of office-bearers was held on the 5th inst. Dr. David Yellowlees (Gartnavel) was elected president. For the office of visitor (or vice-president) there was a contest between Dr. Bruce Goff (Bothwell) and Dr. James Dunlop, Professor of Surgery in Anderson's College Medical School, resulting in the election of the former. The only other contested election was for an examinership in Physiology, in which Dr. William J. Fleming obtained the appointment, the other nominee being Dr. Campbell Black, Professor of Physiology in Anderson's College. Dr. James Stirton, Professor of Midwifery in St. Mungo's College, and Dr. J. K. Kelly, Lecturer on Gynæcology in the same College, were both nominated for an examinership in Obstetrics and Gynæcology, but a contest was avoided by the latter withdrawing.

Oct. 7th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Hygiene and Medical Education.

MR. A. ROCHE, Professor of Forensic Medicine and Hygiene in the Catholic University Medical School, has recently drawn attention to the necessity of requiring attendance on a course of hygiene as a portion of the medical curriculum. A knowledge of public health is daily becoming more necessary, not alone to the practitioner, but to the community at large. Mr. Roche does not require or expect that every man should be a specialist in sanitary matters; all he asks for is that every medical student, before obtaining his diploma, should have a general knowledge of the subject in the same way that he has a general knowledge of diseases of the eye, although he may never practise as an ophthalmic surgeon. A preliminary meeting will be held this week and a committee formed, which will include the names of Sir Charles Cameron, medical officer of health for Dublin; Dr. Grimshaw, Registrar-General; Dr. C. Nixon, and others who are in sympathy with the movement, while Professor Roche will act as honorary secretary. The committee intend drafting a memorial, to be presented to the General Medical Council, praying that they will recommend the licensing bodies to require attendance on a course of instruction in hygiene.

Regius Professor of Surgery, Trinity College.

On Monday next the Academic Council will hold a meeting to appoint a successor to Mr. William Colles, who has resigned.

Meath Hospital, Dublin.

Mr. Rawdon Macnamara delivered the introductory lecture for the present session on Monday last, the chair being occupied by Mr. Croly, President of the College of Surgeons. The same evening the annual dinner for the reunion of old students and governors of the Meath Hospital was held at the Shelbourne Hotel, presided over by Colonel Dease.

Marlborough Barracks, Dublin.

His Royal Highness the Duke of Cambridge, on his recent visit to Dublin, inspected these new barracks, which are almost completed, and expressed his approval of their construction and internal arrangements. They are situated on the North Circular-road, close to the Phœnix Park, the site being an elevated one, the level of the lowest room floor being 136 feet above high-water mark. These barracks will accommodate a cavalry regiment of the first army corps strength—viz, 26 officers, 681 men, and 514 horses. The drainage has been carefully attended to, a separate system of pipes having been provided for storm water, sewage, and subsoil drainage. These empty into a common disconnecting pit, which is drained by a large iron sewer across the railway, connecting with the city sewer at the top of Aughrim-street. The designs for the barracks were furnished by the Royal Engineer Department at the War Office.

Conversazione at the Royal University.

The conversazione for the graduates and undergraduates this year at the Royal University will, it is expected, be fully as successful as last year, when about 700 persons attended.

Royal Academy of Medicine.

The ninth annual general meeting of the Royal Academy of Medicine in Ireland will take place at the Royal College of Physicians on the 30th inst., when office-bearers will be elected and other business transacted. As Dr. Gordon's tenure of office as President of the Academy ceases a new President will be chosen, who, by a tacit arrangement, will be selected from the surgical branch of the profession.

Belfast Lying-in Hospital.

The election for Assistant Physician to the intern department of this hospital was held on Tuesday, when H. D. Osborne, L.R.C.P. & S.Ed., was appointed.

Belfast Dispensary.

The appointment of Dispensary Medical Officer, vacant by the resignation of Mr. Meharry, has been filled by the election of Mr. R. Hall, L.R.C.P. & S Ed., who for several years has acted as Resident Surgeon in the Belfast Union Infirmary.

Proposed Cottage Hospital for Cookstown.

I understand steps are being taken to establish a private hospital in Cookstown for the treatment of paying patients. It seems there is no institution of the sort available in the large district round Cookstown, the county infirmaries being situated at considerable distances—at Omagh and Londonderry,—and patients generally go to Belfast. The proposed hospital, which will not be antagonistic to the workhouse infirmaries, it is thought, would be self-supporting. Dr. W. J. R. Knight is taking the lead in the matter.

Accouchement in the Street.

On Monday morning about 5 o'clock a woman, while proceeding to the Rotunda Lying-in Hospital, was taken suddenly in labour and delivered of a male child. A cab was obtained, and she and her child were removed to hospital.

Two cases of small-pox have recently been reported to have occurred in Dublin.

Oct. 6th.

PARIS.

(FROM OUR OWN CORRESPONDENTS.)

Puerperal Nephritis.

AT a recent meeting of the Academy of Medicine, M. Charpentier recorded the observation of the case of a young woman who, after a first confinement, attended with some puerperal complications, became pregnant two years later, and was confined without any abnormal manifesta-

tion. Eight days afterwards, however, she was seized with rigors. Although the vaginal discharges presented nothing unusual, antiseptic intra-uterine injections were had recourse to. Notwithstanding everything, the rigors persisted, the general health continuing fairly good. Six weeks after the confinement albumen was detected in small quantity in the urine. The rigors had now ceased, but the general health became profoundly affected. Dyspnœa was present, and nausea and vomiting frequent. On a milk diet the general state improved, but the albumen persisted, and was even augmented in quantity. These facts, observed M. Charpentier, were noteworthy, for they were evidence of a somewhat rare condition—viz, puerperal nephritis. It was also interesting to note that during six weeks the rigors were present without any local uterine cause being apparent, and that the albuminuria was not detected until forty-four days after the confinement, which was very exceptional, for generally this complication became manifest at an earlier period. As to the correctness of his diagnosis M. Charpentier had no doubt, notwithstanding the somewhat unusual evolution of the malady, for he laid stress on the fact that the uterine involution, the pelvic organs generally, as well as the lacteal secretion, were perfectly normal. In the absence, then, of any other lesion, a nephritis of a puerperal origin was the only diagnosis possible. M. Tarnier was not sure that M. Charpentier was justified in diagnosing nephritis of an infectious or puerperal origin in a woman falling ill on the eighth day after confinement, and presenting during six weeks great oscillations of temperature, accompanied with rigors. He would rather consider the case one of puerperal fever alone, looking on the nephritis as one of the terminations of this pathological condition, having lasted more than a month. M. Charpentier replied that he was unable to accept this diagnosis because the urine and milk were normal in quality and quantity, because the vaginal discharges were also normal, and local measures were of no avail in modifying the condition of the patient. Moreover, the supervention of dyspnœa and delirium was not common in a puerperal condition. Later on the appearance of albuminuria pointed to nephritis, probably of an infectious origin, since during six weeks the patient was subject to constant and severe rigors.

The Constant Current in Intestinal Obstruction.

M. Semmola of Naples read a paper on this subject at the last meeting of the Academy of Medicine. He submitted that an intestinal occlusion was possible from a transitory intestinal paralysis, the result of faulty innervation, and that the constant current was both indicated and of marked benefit in such cases. In support of this opinion he cited the case of a young man of twenty, who was the subject of a stercoral obstruction of a pronounced kind, which was cured by ordinary methods, but which was followed by a typhlitis and perityphlitis, which in turn were cured in the ordinary way; but, owing to an indiscretion of diet on the part of the patient, a relapse set in, with acute pain and diarrhœa, followed by marked diminution in the amount of urine and subsequent obstinate constipation. Routine treatment having now failed, and the case of the patient becoming grave, laparotomy was suggested. It was then that M. Semmola saw the case, and, attributing the occlusion to deficient intestinal innervation, advised a trial of the electric current before having recourse to surgical intervention. This treatment was carried out as follows. The positive pole of a Daniel's apparatus, indicating a power of 10 milliampères, was introduced into the rectum, the negative pole being applied along the course of the large intestine. Each application lasted from eight to ten minutes, repeated three times daily. At the end of the first day the urine improved, the pains became less intense and less frequent, and the general condition rallied. At the end of the third day—that is, after the ninth application of the current—the patient had a natural evacuation, and on continuing the treatment two days longer, the intestinal functions were entirely restored.

An Epidemic of Typhus Fever.

At the same meeting M. Thoinot communicated some observations made on an epidemic of typhus fever at Tudy, Finistère. The epidemic lasted from May to August, attacking eighty-four persons, and causing sixteen deaths. He was unable to find that the water or air had anything to do with the conveyance of the germ. The essential condition in its propagation was direct contact. The microbe would appear to be contained in the cutaneous secretions, but the manner of its introduction was difficult to determine, and in this the outbreak at Tudy was no exception. Typhus fever is, however, endemic in Brittany, and the epidemic in question was doubtless only an acute manifestation of its presence. The treatment followed and found most useful consisted in antisepsis of the skin with sublimated lotions, accompanied, of course, by the usual general indications. As to prophylactic measures, absolute isolation was enjoined, disinfection of all linen and bedding, and prolonged spraying of the rooms with a sublimate solution of 10 per cent.

Paris, Oct. 6th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Professor Virchow.

THE Moscow Society of Friends of Natural Science, Anthropology, and Ethnography has resolved to present Professor Virchow with a gold medal on his seventieth birthday on the 13th inst. The medical men of St. Petersburg will send one of their number to deliver to him an address in a portfolio of massive silver, bearing his initials in gold, surrounded by the inscription: "To Rudolf Virchow, from the Medical Men of St. Petersburg; 1—13 October, 1821—1891." Hans Fechner, junior, has painted a new portrait of the professor, in which he is represented standing with a pair of compasses in his right hand before a table with several skulls on it, the dimensions and structure of which he is about to investigate. This portrait has been successfully heliographed and published by Franz Haufstängel of Munich.

The Chair of Hygiene at Marburg.

The chair of Hygiene in the University of Marburg, vacant by the appointment of Professor Rubner to succeed Koch in Berlin, has been declined by Professor Gaertner of Jena and offered to Professor Fraenkel of Königsberg.

The Society of Prussian Medical Officials.

The Society of Prussian Medical Officials held its ninth general assembly here last week, and passed the following noteworthy resolution, which was proposed by Dr. Siemens, Director of the Provincial Lunatic Asylum at Lauenburg: "The Society of Prussian Medical Officials sees with satisfaction in the Bill concerning the abuse of spirituous liquors an attempt to grapple effectively with a serious social evil. It refrains from expressing an opinion on those provisions which do not belong to the field of medicine, and declares, firstly, that punishment for drunkenness cannot be approved of, because drunkenness is to be regarded as a morbid condition; secondly, that for the same reason the placing of drunkards under guardians must be carried out in accordance with the legal prescriptions for the placing of insane persons under guardians, and never without consulting medical experts; thirdly, that the establishments for the cure of drunkenness, mentioned in the Bill, must be under medical superintendence and State supervision."

Pental.

The name of the newest anæsthetic is Pental. Its inventor is Professor Von Mering, Director of the Medical Policlinic in Halle. He observed four years ago that tertiary amyl-alcohol produces a soporific effect, and since then it has been in use as a hypnotic. It occurred to him that the amyl corresponding to amyl-alcohol might be fitted for anæsthetic purposes, and this substance has now, after several vain attempts, been obtained. Its chemical composition is $(CH_3)_2$ CCH CH_2, and Mering calls it Pental, owing to the circumstance that it contains *five* carbon atoms. It is very volatile and easily combustible. It can be administered exactly like chloroform, and the quantity required each time costs about sixpence. Anæsthesia sets in after three or four minutes, rarely later. It is not deep, but suffices to render small operations, such as the extraction of teeth, painless. It is neither accompanied nor followed by any unpleasant effects.

The Emperor and Empress Frederick Hospital.

A new pavilion of the Emperor and Empress Frederick Hospital is to be opened on the 13th instant. The day has

been chosen in honour of Professor Virchow, it being his seventieth birthday. He is president of the committee, and has rendered great services to the institution. It is hoped that the Empress Frederick will be present.

Berlin, Oct. 6th.

CANADA.

(FROM OUR OWN CORRESPONDENT.)

Census Returns.

THE census returns of the Dominion were presented to Parliament last month. They show the present population to be 4 823,344, an increase of only 498,534 in the decade, or 11·52 per cent., against 17·31 per cent. in the previous ten years. The figures are greatly below the estimated population, which, allowing for a natural increase of 1·5 per cent. per annum *plus* the 886,171 immigrants reported by the Department of Agriculture as having settled in the country during the same period, should have shown an increase of 1,334,891. That they do not is greatly to be regretted, for during the decade Canada has done much to develop her natural resources, and to open up vast tracts of land, giving therein free grants to settlers from the old country. The fact confronts us that, notwithstanding all our efforts to promote emigration and foster industry by high tariff, there is a great and serious leak into the neighbouring Republic. We have not only not retained our immigrants, but have also lost our natural increase; moreover, of the total increase only 24·2 per cent. is in the rural districts, or the miserable showing of only 3·6 per cent. in the rural population. (The statistics of the rural population are not quite complete, but the changes will make no material difference.) Without further comment, I append the figures as given per province, and also the population of the cities and towns and rural districts:—

Provinces.	1881.	1891.	Increase in decade.	Per-centage.
Ontario	1,926,922	2,112,989	186,067	9·65
Quebec	1,359,027	1,488,586	129,559	9·53
Nova Scotia	440,572	450,123	9,951	2·25
New Brunswick	321,233	321,294	61	0·02
Manitoba	62,200	151,442	92,182	148·01
Prince Edward Island	108,891	109,088	197	0·18
British Columbia ...	48,459	92,767	43,308	87·56
Assineboia, Alberta, and Saskatchewan	25,515	61,487	35,972	140·98
Unorganised	30,931	31,168	1,237	4·00
Totals	4,324,810	4,823,344	498,534	11·52

Urban and rural population.	1881.	1891.	Increase.
Cities and towns over 5000 ..	731,510	1,030,250	298 740
Towns over 3000	115,148	162,347	47,199
Villages over 1500	143,661	175,639	31,978
Rural districts	3,334,491	3,455,108	120,617
Totals	4,324,810	4,823,344	498,534

	1881.	1891.	Increase.
Montreal*	155,237	216,650	61,413
Toronto*	96,196	181,220	85,024

* These are the only cities in the Dominion with a population over 100,000.

Medical Missionaries for China.

A farewell was this month tendered to five ministers leaving for the East, three of whom were graduates in medicine. They are going out under the auspices of the Methodist Church of Canada.

Executive Health Officers' Convention.

This Convention met during the third week of August in Trenton. Most interesting discussions followed the reading of the several papers. The attendance was larger than in previous years, showing that more interest is being taken in this important Association. Dr. C. MacLellan (Trenton) was elected President for the ensuing year.

School of Pedagogy, Toronto.

I may note that Dr. W. Oldwright, Professor of Sanitary Science, University of Toronto, has been appointed Lecturer on Hygiene in this School. The instruction he will impart to the future masters of advanced schools and school inspectors must result in an improvement of our school buildings and a proper care of our school children.

Toronto.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in the subjects indicated at a meeting of the Examiners on Monday, the 5th inst.:—

Anatomy and Physiology.—Hugh Alston, of Sydney University; Charles H. Caldicott, Arthur E. Tonks, Robert F. Ryland, Herbert B. Minshull, Matthew L. G. Hallwright, and Walter Chapman, of Queen's College, Birmingham; Walter E. Evans, of Dublin; Wykeham T. Lydall, of Bristol Medical School; Richard Crossley, of Owens College, Manchester; William J. Boyes and William J. Gregerson, of Melbourne University; William A. Michie, of Aberdeen University and Guy's Hospital; Henry M. Williamson, of McGill College, Canada; Lewis A. Smith, of London Hospital.

Anatomy only.—Daniel Maguire, of Queen's College, Galway; William Mansergh, of Owens College, Manchester; Horatio C. W. Wood, of Queen's College, Birmingham; Richard G. Worger, of Bristol Medical School and Mr. Cooke's School of Anatomy and Physiology; Joseph A. W. Pereria, of Grant Medical College, Bombay.

Physiology.—William J. Bowden, Henry H. Oram, and Gerald George Joynson, of Owens College, Manchester; Frank Husband and John H. R. Pigeon, of Bristol Medical School; Wilford Mettam, of Sheffield Medical School; Wm. V. P. Teague, of London Hospital.

Passed on the 6th inst.:—

Anatomy and Physiology.—Bertram L. Abraham, of University College.

Anatomy only.—Tom B. Abbott, of Yorkshire College, Leeds; Leonard Bostock, of Owens College, Manchester; William C. Pitt and William E. Pain, of Guy's Hospital; Richard Slocock, Charles F. Poole, and Alexander McD. Cowie, of St. Thomas's Hospital and Mr. Cookes School of Anatomy and Physiology; Oswald O. Williams, Joseph E. S. Old, and Gwilym Lewis, of London Hospital; Frederick P. Rose, of London Hospital and Mr. Cooke's School of Anatomy and Physiology; Chas. W. Lamphier, of Charing-cross Hospital; Henry W. Armit and Richard W. Gilmour of St. Bartholomew's Hospital.

Physiology only.—Sydney C. Legge, Geo. R. Northwood, and Lockhart Lowe, of Queen's College, Birmingham; Maurice C. Barber and Albert T. Morgan, of Bristol Medical School; Gerald A. Child, of Oxford University; Isaac Watts, of Owens College, Manchester; Francis W. Bailey, of University College, Liverpool; Herbert W. Carson and Arthur C. Bazely Casson, of St. Bartholomew's Hospital; Arthur Emlyn and William Drake, of University College; Ernest Moore, of St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology; Leonard J. Miskin, of St. Thomas's Hospital; Harold F. Humphreys, of Guy's Hospital; Ernest Reginald Badcock and Rees G. Jones, of London Hospital; William H. Reed, of King's College; Penrose L. Watkins-Williams, of Middlesex Hospital and Mr. Cooke's School of Anatomy and Physiology.

HORNSEY CHURCHYARD.—At the last meeting of the Local Board it was resolved, after some opposition as to private rights of purchased graves for burial, to petition the Home Secretary, together with the Rector and Churchwardens of the parish, for the absolute closing of this churchyard.

THE MIDLAND SOCIETY OF MEDICAL OFFICERS OF HEALTH.—The Birmingham and Midland Branch of this Society held its annual meeting at the Council House on the 1st instant. Dr. Arthur Underhill occupied the chair, as retiring president. The report of the secretary was agreed to, and the election of officers followed. The president, Dr. George Reid (Stafford), having taken the chair, read an interesting paper on County Councils as Sanitary Authorities now and in the future. In the discussion which ensued, Dr. Bostock Hill, Mr. Hollinshead, and Dr. Morley took part. A vote of thanks was accorded to the president, and the meeting terminated.

THE STAFF OF THE METROPOLITAN HOSPITAL SATURDAY FUND.—At a recent meeting of the board of delegates to this fund the Council reported that they had passed a resolution recommending the board of delegates, "in view of the increasing necessity of maintaining and extending the penny a week collection in the workshops," to retain the services of Mr. Taylor as assistant organising secretary. The adoption of the report having been moved, an amendment was proposed and seconded, disapproving of any further alteration of the staff until the report of the special committee appointed last February had been carried out. An animated discussion ensued. Ultimately, however, the recommendation of the Council was agreed to.

THE LAKESIDE HOSPITAL FOR SICK CHILDREN, TORONTO.—This hospital, recently erected on the Western Island, was formally handed over, on the 17th ult., by Mr. John Ross Robertson, the donor, and also chairman of the institution, to the Board of Trustees. The building is a commodious structure, built on the most approved system of hospital requirements, and has cost $25,000.

MANCHESTER MEDICO-ETHICAL ASSOCIATION.—It is announced that this Association will continue the discussion of sanitary subjects during the present session, as initiated at the beginning of the year. The committee desire to interest the medical profession and the public generally in sanitary science, with the object of assisting the health committee to combat the increasing liability to the rise and spread of disease in that populous centre. It is also intended to publish and circulate the addresses.

PRESENTATIONS.—Dr. William Bennett of the Waterloo-road, Cheetham, has been presented by the members of the St. John's Institute Ambulance Class, Cheetham, with a handsome inkstand, suitably inscribed, as a token of respect, and a slight acknowledgment of his instruction and services to the class.——Mr. Henry James Sequeira, M.R.C.S., and Mr. George Wm. Sequeira, M.R.C.S., both of Jewry-street, Aldgate, have each been presented by their patients in the eastern district of the City with a handsome silver-mounted cane, together with an illuminated address, as slight tokens of their appreciation of the services rendered by them for the past twelve years.

VICTORIA HOSPITAL FOR SICK CHILDREN, HULL.—The new building in Park-street of this institution will, it is expected, be opened for the admission of patients in the course of the present month. During the past year, notwithstanding the limited accommodation at the Story-street hospital, the number of in-patients had exceeded by over 300 the record of any previous year. Upwards of 100 patients had received the benefits offered by the convalescent home at Hornsea, which for the first time since it was established had been kept open throughout the twelve months. The cash statement showed a balance in hand of £188 9*s.* 1*d.* But a debt of £600 still existed. The new building fund now amounted to £6516 17*s.* 11*d.*

FOOTBALL CASUALTIES.—A youth whilst playing football at Ashton-under-Lyne on the 22nd ult., was accidentally pushed into a pit of boiling soap liquor at Sandy Vale Print Works, death supervening on the following day.—On Saturday last, whilst the St. Peter's Club were playing the Grammar School Club at Mansfield, Gallimore, a youth (goalkeeper to the Grammar School team) sustained a compound fracture of the collar-bone.—Last week, during football practice at the St. John's Institute ground, Mansfield, a young man named Beeley, received a severe kick on the leg, fracturing it.—Southward, the Forest Swifts, reserve back, who recently had his knee twisted while playing against the Burton Swifts, took the field last week, after a short rest, against the Hucknall St. John's team, with the result of getting his knee-cap kicked off.—Lately, a young man named Archer, whilst playing football at Somerby near Grantham, sustained a fracture of the leg in two places.

SCHOLARSHIPS.—*St. Mary's Hospital*: The following candidates have been successful in obtaining Entrance Scholarships at the above school: Natural Science Scholarships—B. Lewitt, W. B. Stevenson, and H. Sugden. University Scholarships—J. A. Wright, B.A., and W. J. Harris, B.A.——*Charing-cross Hospital Medical School*: The Entrance Scholarship, value 100 guineas, has been awarded to Mr. J. R. Langley, and that of 50 guineas to Mr. Howard Green.——*St. Mary's Hospital, Paddington*: Stanley B. Atkinson, second son of the Rev. J. W. Atkinson, of Latimer Congregational Church, Stepney, has just secured in open competition the fifty guinea scholarship awarded at this hospital.——*University College Hospital: Entrance Exhibitions*—Mr. W. B. L. Trotter, £100; Mr. C. Goring £60; A. J. Rodocanachi, £40; and Mr. J. C. H. Leicester, £40.——*Westminster Hospital Medical School*: The Entrance Scholarship in Arts, value £80, has been awarded to Mr. F. Riley.——*The London Hospital Medical College*: The following are the names of the successful competitors for our Entrance Scholarships:—First Entrance Science Scholarship, value £75, Mr. Herbert Innes; Second Entrance Science Scholarship, value £50, Mr. E. C. Davenport; First Buxton Scholarship, value £30, Mr. G. H. Warren; Second Buxton Scholarship, value £20, Mr. J. G. Wallis.

THE INFECTIOUS DISEASES NOTIFICATION ACT.—The rural sanitary authority of Farnham, Surrey, has urged upon the central authority the necessity of including all Government buildings within the scope of the Infectious Diseases Notification Act.

ST. BARTHOLOMEW'S HOSPITAL.—At the meeting of the City Commission of Sewers on Tuesday, Dr. Sedgwick Saunders announced that the proposed new drainage plans of this hospital were now under the careful consideration of the engineer to the Commission, and would form the subject of a report at an early date.

THE RIVER THAMES.—On Thursday a deputation from the Plumstead Board of Works waited upon the Council of the Chamber of Commerce to ask that body to take up the question of the pollution of the Thames between Barking and Crossness, and a committee was appointed to take the question into consideration.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL An enlargement by the addition of a new wing to this institution, urgently needed by the rapidly increasing number of in-patients, is in course of erection, involving an outlay of considerably over £5000. The total additional beds thus to be provided will be twenty-two, and it is expected the wing will be ready for occupation in March next

OPENING OF THE NEW HOSPITAL IN ANTANANARIVO, MADAGASCAR.—Her Majesty the Queen of Madagascar opened, on the 13th of August last, this much-needed new building, which is erected on a hillside, a short distance from the capital. It is a large and commodious building, admirably adapted for the purposes required. One wing remains unfurnished, on the completion of which there will be four large, two smaller, and several private wards, capable of accommodating altogether nearly 100 patients. Convenient administrative offices are also provided. The total cost is about £5000.

THE SMALL-POX HOSPITAL AT LEEDS.—The proposal to erect a new small-pox sanatorium on the Ivy House estate at Leeds is meeting with opposition. It is urged that the conditions under which the land in question was sold implied that it was to be used for the erection of small dwellings, and that the building of a small-pox hospital on it would very seriously affect its future value. The corporation, it appears, had proceeded with the work, having a full knowledge of their liability. The objectors state that they are willing to consider any reasonable offer which the corporation may think fit to make.

A FATAL OVERDOSE OF COCAINE.—On Monday the coroner for West Essex held an inquiry at the Board-room of the Walthamstow Cemetery on the body of Eustace Frederick Bright, M.D.Lond., M.R.C.S., aged twenty-nine, lately practising at Bournemouth, who was found dead in a lavatory at the St. James's-street Station, Walthamstow, on the previous Friday night. The medical evidence was to the effect that the deceased had taken an overdose of cocaine to relieve pain, then, feeling the effects of the overdose, had recourse to apomorphine in order to produce vomiting. A verdict was returned in accordance with the medical evidence.

THE SOCIETY OF MEDICAL OFFICERS AT LEEDS.—In response to the invitation of the Yorkshire Branch of the Association, the yearly provincial meeting of this Society was held at the Town Hall, Leeds, on Saturday. Mr. Henry E. Armstrong (Newcastle-on-Tyne), president of the Society, occupied the chair. There was a large and representative assembly. Mr. Alderman Ward read a paper on the Burning of the Refuse of Towns, and sketched what the Leeds Corporation had done in that direction. The party afterwards visited several local works of interest to them. The morning's tour of inspection over, Alderman Ward entertained the members to luncheon in the Mayor's rooms. The President commenced the afternoon conference with a short address. Dr. Whitelegge introduced the subject of workmen's dwellings. Several speakers followed on the question. A resolution was adopted that the Local Government Board be petitioned to obtain an Act of Parliament fixing the minimum width of front and back streets and prohibiting back-to-back houses. Mr. Mason contributed a short paper on Hospital Construction, and the meeting was brought to a close by votes of thanks to the President and Mr. Alderman Ward.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION. The winter session of the school has commenced, and on Monday last, when the new class of regimental stretcher bearers paraded at the London Scottish head-quarters, James-street, Victoria-street, S.W., the numbers were so great that Surgeon H. F. Stokes, senior medical officer instructor, announced that it was quite impossible to take any more men, and the class was therefore closed. The annual dinner of the school will take place on Saturday, December 12th. Application for tickets should be made to C. J. Downer, "Fairfield," Willesden-park, N.W. It may be remembered that last year a large number of applications for tickets had to be refused. Medical officers are therefore recommended to apply early. The official inspection of the present class will be held on Monday, December 14th, at 7.30 P.M.

LITERARY INTELLIGENCE.—M. G. Masson (Paris) announces the publication of a new Treatise on Medicine, which is to appear in six volumes. The first—dealing with diseases of nutrition, diseases common to man and animals and infective diseases—is now ready, and it is intended that the publication of the whole work shall be completed within two years. The work is under the direction of Professors Charcot, Bouchard, and Brissaud; and the contributors comprise the names of MM. Babinski, Ballet, Brault, Chantemesse, Charrin, Chauffard, Gilbert, Guinon, Le Gendre, Marfan, Marie, Mathieu, Netter, Œttinger, André Petit, Richardière, Roger, Ruault, Thibièrge, and Fernand Widal. The subscription price is at present fixed at 105 francs, but it will be afterwards raised. Subscribers will only be called upon to pay for each volume as it appears.—On the occasion of the celebration of the seventieth birthday of Professor Virchow on the 13th inst., there will be published by S. Karger (Berlin) a biography of the illustrious scientist by Dr. W. Becher; and the same firm will also issue two new works by his pupils—viz.: A Compendium of Pathological Anatomy by Dr. R. Langerhaus, and a Compendium of Pathology by Dr. R. Oestreich.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on October 6th, 1891.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	189	55	1	68	..	313	442
North-Western Hospital	254	55	..	16	..	325	411
Western ,,	127	17	—	6	1	151	224
South-Western ,,	166	22	..	8	..	196	340
South-Eastern ,,	177	17	1	31	3	229	462
Northern ,,	248	27	..	23	...	298	480
Totals	1161	193	2	152	4	1512	2359

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ALEXANDER, PETER, L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the No. 2 Rural Sanitary District of Tynemouth.

BERRY, FRED. C., M.D. Dub., M.Ch., has been appointed Medical Officer for the No. 2 Sanitary District of the Sevenoaks Union.

BURDON, JOHN, L.R.C.S., L.R.C.P. Edin., has been appointed Surgeon to the Newcastle-on-Tyne Throat and Ear Hospital, vice T. Buckham, resigned.

CADMAN, E. S. R., M.B., C.M. Edin., has been appointed Medical Officer for the Smalley Sanitary District of the Belper Union.

CLEGG, W. W., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the No. 1 Stratford Sanitary District of the West Ham Union, vice Hamilton, deceased.

COOK, J. W., M.D. Aberd., M.R.C.S., has been appointed Medical Officer of Health for Clacton, Essex.

DRAPER, M. RYDER, L.R.C.P., L.R.C.S. Edin., L.S.A., has been appointed Medical Officer to the Luton Workhouse (vice Dr. Rankin, deceased), and to the West Ward of the Luton Union; and also Public Vaccinator.

FOSBROKE, G. H., M.R.C.S., D.P.H. Camb., has been reappointed Medical Officer of Health for the Worcestershire Parishes of the Alcester Union.

FOSTON, EDMUND C., L.R.C.P. & S. Edin., F.P.S. Glasg., has been appointed Second Colonial Surgeon, Province Wellesley, South Straits Settlements.

HOLROYDE, J., M.R.C.S., has been appointed Medical Officer of Health for the Chatham Urban Sanitary District of the Medway Union.

JEPHCOTT, R. W., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Warwickshire Parishes of the Alcester Union.

LING, C. A. S., M.R.C.S., has been reappointed Medical Officer of Health for the Port of Colchester.

LYLE, T., M.D., has been appointed Pathologist to the Newcastle-on-Tyne Throat and Ear Hospital.

MALDEN, F. J., M.D. Durh., M.R.C.S., has been appointed Medical Officer for the Fourth Sanitary District of the Wells Union.

MOSSOP, ARTHUR G., M.R.C.S., L.R.C.S., L.R.C.P., has been appointed Medical Officer of Health to the Port of Newhaven.

MOYLE, W. H., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Rogate Sanitary District of the Midhurst Union, vice Daniel, resigned.

MUSGROVE, CHAS. D., M.B., C.M. Edin., Assistant Medical Officer of Wye House Asylum, Buxton, has been appointed Assistant Medical Officer to the Plymouth Borough Asylum.

NESBITT, R., L.K.Q.C.P., L.R.C.S. Irel., has been reappointed Medical Officer of Health for the Sutton-in-Ashfield Urban Sanitary District.

NICOLL, JAS. H., M.B. Glasg., has been appointed Dispensary Surgeon to the Glasgow Western Infirmary.

SAWELL, F. L. P., M.R.C.S., L.S.A., has been appointed Assistant Medical Officer to the Shoreditch Infirmary, vice Wynne, resigned.

SINCLAIR, A. W., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Fifth District of the Yeovil Union.

STANFIELD, WM., M.D. St. And., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Township of Saddleworth, Saddleworth Union.

TATTERSALL, C. H., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer, *pro tem.*, to Barton-on-Irwell, Eccles, Winton, and Monton Sanitary Districts of the Lancaster Union, vice Carrington, resigned.

THURSFIELD, W. N., M.D. Edin., M.R.C.S., has been reappointed Medical Officer of Health for Newport, Salop.

WELLINGTON, R. H., L.R.C.P., M.R.C.S., has been appointed Medical Officer of Health for the Wisbech Port and Sutton Bridge.

WILLIAMSON, J. G., L.R.C.P. Lond., M.R.C.S., has been appointed Vaccination Officer for the Kettering District of the Kettering Union, vice Smith, resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Assistant Physician. (Apply to the Secretary, 24, Finsbury-circus, E.C.)

EASTERN COUNTIES' ASYLUM FOR IDIOTS, Colchester.—Resident Medical Attendant. Salary £100 per annum, with furnished apartments in the Asylum, board, and washing.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Casualty Officer, who will be required to act as Registrar and Assistant Anæsthetist. An honorarium at the rate of 50 guineas per annum.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, W.—Resident Medical Officer. Salary £50 a year, with board and rooms.

KENT COUNTY ASYLUM, Chartham, near Canterbury.—Junior Assistant Medical Officer. Salary £125 per annum, with furnished apartments, board, and attendance.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon for not less than six months. (Apply to Mr. Fox, 53, Princess-street.)

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Assistant House Surgeon for six months. Board, residence, and laundry expenses provided.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Resident Medical Officer for six months. Salary £50.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Assistant Resident Medical Officer for six months. No salary.

OWENS COLLEGE, Manchester.—Junior Demonstratorship in Anatomy. Annual stipend £100.

RIPON DISPENSARY AND COTTAGE HOSPITAL.—Resident House Surgeon and Dispenser. Salary £70 per annum, with board and lodging.

SALFORD UNION.—Assistant Medical Officer for the Union Infirmary, Hope, near Eccles. Salary £130 per annum, with furnished apartments in the Infirmary. (Apply to the Clerk, Union Offices, Eccles-new-road, Salford.)

WARRINGTON INFIRMARY AND DISPENSARY.—Junior Resident Surgeon. Salary £100 per annum, with furnished residence and board.

Births, Marriages, and Deaths.

BIRTHS.

ARNISON.—On Oct. 2nd, at 11, Eldon-square, Newcastle-on-Tyne, the wife of W. C. Arnison, M.D., of a daughter.

BOXALL.—On Oct. 4th, at Rudgwick, Sussex, the wife of Frank Boxall, M.R.C.S., of a daughter.

JARDINE.—On Sept. 30th, at Lichfield-gardens, Richmond, Surrey, the wife of James Jardine, M.B., of a son.

LOWRY.—On Sept. 23rd, at Wénchow, China, the wife of John H. Lowry, M.B., I.M. Customs, of a daughter.

PRESTON.—On Oct 2nd, at Caroline-place, Mecklenburgh-square, W.C., the wife of Staff-Surgeon Theodore J. Preston, R.N., of a daughter.

SCULLY.—On Sept. 29th, at Calcutta, the wife of Surgeon-Major J. Scully, of a son.

SMITH.—On Oct. 5th, at Riggindale-road, Streatham, the wife of Harry E. Smith, M.A., M.B., B.C. Cantab., of a son.

MARRIAGES.

BARBOUR—ALLEN.—On Oct. 6th, at St. Mark's, Kennington, James Barbour, M.D., to Lizzie Allen.

CLARENDON—LIGHTBOWN.—On Sept. 30th, at St. Luke's Church, Weaste, Henry John Clarendon, L.R.C.P., M.R.C.S., younger son of the late B. Godfrey, M.D., F.R.A.S., of Enfield, Middlesex, to Edith Margeret, youngest daughter of Henry Lightbown, J.P., of Weaste Hall, Manchester.

JOHNSTON—YOUNGER.—On Oct. 6th, at Holy Trinity Church, Dunoon, Robert McKenzie Johnston, M.D., F.R.C.S.E., Charlotte-square, Edinburgh, son of the late Henry Johnston, H.E.I.C.S., to Amy, eldest daughter of H. J. Younger, Esq., of Benmore, Argyleshire, and Ashfield, Edinburgh.

HAMEL-SMITH—TUCKER.—On Sept. 5th, at All Saints' Church, Port of Spain, Trinidad, W.I., Lionel Hamel-Smith, M.R.C.S., L.R.C.P., son of Hamel Lewis Smith, of Croydon, to Mabel, daughter of W. Sanger Tucker, of Maqueripe House, Port of Spain, Trinidad, W.I.

ROGERS—FLETCHER.—On Oct. 1st, at SS. Philip and James's Church, Oxford, Bertram Mitford Heron Rogers, M.B. Oxon., of York-place, Clifton, Bristol, son of the late J. E. Thorold Rogers, Professor of Political Economy in the University of Oxford, to Agnes Constance, eldest daughter of the Rev. C. J. H. Fletcher, Rector of Carfax, Oxford.

SANDWITH—SANDWITH.—On Oct. 3rd, at St. Mary Abbot's Church, Kensington, by the Rev. C. G. Harvey, Rector of Peper Harow, assisted by the Rev. G. S. Pownall, Fleming M. Sandwith, of Cairo, M.R.C.S., L.R.C.P., to Gladys, youngest daughter of the late Humphrey Sandwith, C.B., M.D.

SHILLINGFORD—WHITE.—On Oct. 3rd, at the Church of St. Chrysostom, Peckham, Henry Bartlett Shillingford, Surgeon, of Park House, Rye-lane, S.E., second surviving son of Isaac Shillingford, Surgeon, to Augusta Mary, only surviving daughter of John White, of Peckham-rye.

VAUDREY — GREENWOOD. — On Oct. 1st, at Eccles Parish Church, Edmund Vaudrey, M.D., Derby, to Annie, third daughter of the late John Greenwood, of Bolton Lodge, Eccles.

WELLINGTON—TAYLOR.—On Sept. 30th, at the Parish Church, Shanklin, Isle of Wight, R. Henslowe Wellington, M.R.C.S., L.R.C.P., of Sutton Bridge, Lincoln, third son of James Wellington, Esq., of Fellows-road, South Hampstead, to Hannah, only child of the late John Taylor, Esq., of The Woodlands, Winchcombe, Gloucestershire.

DEATHS.

GRANT.—On Oct. 3rd, at Netherleigh, Cheltenham, Surgeon-General James McGrigor Grant, M.D., aged 72.

MACKAY.—On Sept. 19th, suddenly, on board s.s. *British Prince*, on return voyage from Philadelphia, Wm. Mackay, L.R.C.S. and L.R.C.P. Edin., late of London, son of the late James Mackay, Woburn, Beds.

WALTER.—On Sept. 20th, at Marshfield, Gloucestershire, Walter Ernest Walter, M.R.C.S., L.S.A. Lond., aged 32.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

BAILLIÈRE ET FILS, Paris.

La Pratique Journalière des Hôpitaux de Paris. Par le Professeur Paul Lefort. 1891. pp. 356.

BALE, JOHN, & SONS, Great Titchfield-street, London.

Lectures on Otorrhœa and its Complications. By W. R. H. Stewart, F.R.C.S., L.R.C.P. Edin. Second Edition. 1891. pp. 80.

CHURCHILL, J. & A., New Burlington-street, London.

Text-book of the Principles and Practice of Medicine. By the late C. H. Fagge, M.D., F.R.C.P., and P. H. Pye-Smith, M.D., F.R.S. Third Edition. Vols I. and II. 1891.

The Leeward Islands Medical Journal. Edited by H. A. A. Nicholls, M.D., F.L.S. 1891. pp. 188.

DAVIS, F. A., Philadelphia and London.

History of Circumcision, from the Earliest Times to the Present. By P. C. Redmondino, M.D. 1891. pp. 346.

GRIFFIN, CHAS., & CO., Exeter-street, Strand.

A Surgical Handbook. By F. M. Caird, M.B., F.R.C.S. Edin., and Chas W. Cathcart, M.B., F.R.C.S. (Eng. and Edin.). Illustrated. Fourth Edition, revised. 1891. pp. 278.

HEINEMANN, WM., London.

The Scapegoat. A Romance. By Hall Caine. Vols. I. and II. Second Edition. 1891. pp. 258 and 314.

LEWIS, H. K., Gower-street, London.

A Practical Treatise on Diseases of the Skin. By H. G. Piffard, A.M., M.D., assisted by R. M. Fuller, M.D. With Plates and Illustrations. 1891. pp. 157.

Nerve Prostration, and other Functional Disorders of Daily Life. By Robson Roose, M.D., LL.D., F.C.S. Second Edition. 1891. pp. 671.

LONGMANS, GREEN, & CO., London.

Solutions. By Professor W. Ostwald. Translated by M. M. P. Muir. 1891. pp. 316. Price 10s. 6d.

Transactions of the Clinical Society of London. Vol. XXIV. 1891. pp. 272.

An Introduction to Human Physiology. By A. D. Waller, M.D. 1891. pp. 612. Price 18s.

MACMILLAN & CO., London.

Diphtheria: its Natural History and Prevention. By R. Thorne Thorne, M.B. Lond., F.R.C.P. 1891. pp. 266. Price 8s. 6d.

OLIVER & BOYD, Edinburgh.

The Neuroses of Development. By F. S. Clouston, M.D., F.R.C.P. Edin. With Illustrations. 1891. pp. 138. Price 7s. 6d.

PENTLAND, YOUNG J., Edinburgh and London.

Hydatid Disease in its Clinical Aspects. By James Graham, M.A., M.D Edin. Illustrated. 1891. pp 201.

Prescribing and Treatment in the Diseases of Infants and Children. By P. E. Muskett. 1891. pp. 293.

RENSHAW, HENRY, 356, Strand, London.

An Index of Diseases and their Treatment. By Thos. H. Tanner, M.D., F.L.S. Revised by P. Boulton, M.D., M.R.C.P. Lond. Fourth Edition. 1891. pp. 512.

SHAW & SONS, Fetter-lane, London.

The Public Health (London) Act, 1891. With Introduction, Notes, and Index. By Alex. Macmorran, M.A., Barrister-at-Law. 1891. pp. 306.

SILVER, BURDETT, & CO., New York; and GAY & BIRD, King William-street, West Strand, London.

An Elementary Handbook on Potable Water. By Floyd Davis, M.Sc., Ph.D. 1891. pp. 118. Price 5s.

SMITH, ELDER, & CO., Waterloo-place, London.

Dictionary of National Biography. Edited by Sidney Lee. Vol. XXVIII. Howard—Inglethorp. 1891. pp. 444.

A Guide to Therapeutics. By Robt. Farquharson, M.P., M.D. Edin., F.R.C.P. Lond. Fifth Edition. 1891. pp. 417.

THE OFFICE OF "THE HOSPITAL," 140, Strand, London.

Burdett's Hospital Annual and Year-book of Philanthropy, 1891-1892. Edited by H. Burdett. pp. 424. Price 3s. 6d.

On the necessary Precautions to be taken to obtain the most Benefit from the Climate of Nice and the Riviera; by Dr. Thos. Lina, M.D. Paris (R. Clay & Sons, London and Bungay, 1891).—Centralblatt für Bakteriologie und Parasitenkunde; Jena, September, 1891 (Gustav Fischer, Jena).—The Twenty-fifth Annual Report of Dr. Barnardo's Homes for Orphan and Destitute Children for 1890 (Offices of the Homes, Stepney-causeway, London, E.). — Index Medicus, Authors and Subjects; Vol. XIII., No. 8, August, 1891 (Trübner & Co., and Lewis, London). — The Cultivation of Animal Vaccine and Experimental Proof of its Origin from Small-pox Virus; by Surg.-Major W. G. King, M.B. (G. W. Taylor, Madras, 1891). — A Pocket Epitome of the British Pharmacopœia; by R. Coombe, M.A., F.R.C.S. (Baillière, Tindall, & Cox, London, 1891).—Transactions of the Obstetrical Society of London; Vol. XXXIII. for the year 1891; Part II. for March, April, and May (published by the Society, Hanover-square); price 5s.—Everybody's Writing-desk Book; by C. Nisbet and Don Lemon (Saxon & Co., London). — Moderne Chemie; von Dr. Lassar-Cohn (Leopold Voss, Hamburg und Leipzig, 1891).—Prescriber's Companion; by Thos. Savill, M.D. Lond., M.R.C.P.; Second Edition (J. Bale & Sons, London, 1891); price 1s.—Intoxications par le Sublimé Corrosif chez les Femmes en Couches; par Docteur Richard Sebillotte (G. Steinheil, Paris, 1891). — Notes on Beri-Beri from 1882 to 1888; by A. W. Sinclair, L.R.C.P., L.R.C.S. (Royal Colonial Institute, London, 1889).—Surgical Treatment of Intussusception; by N. Senn, M.D., Ph.D. Chicago (J. E. Bryant Company, Toronto, 1891).—Deaths from Chloroform and Ether since the Hyderabad Commission; with Conclusions; by L. Turnbull, M.D., P.H.G., Philadelphia (The Office of the American Medical Association, Chicago, 1891).—Magazines for October: Good Words, Sunday at Home, Leisure Hour, Sunday Magazine (Isbister); Boys' Own Paper, Boys' Out-door Games and Recreations, Girls' Own Paper, Girls' Own Out-door Book (Religious Tract Society); Scribner's.

Medical Diary for the ensuing Week.

Monday, October 12.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2 P.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. W. B. Cheadle: The Medical Disorders associated with Rickets.—Royal London Ophthalmic Hospital, Moorfields: 1 P.M., Mr. R. Marcus Gunn: External Diseases of the Eye.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Heart—Valvular Lesions.

Tuesday, October 13.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. Jonathan Hutchinson: Exceptional Forms of Syphilis.—Bethlem Hospital: 2 P.M., Dr. Theo. B. Hyslop: Melancholia.
THE SANITARY INSTITUTE (Parkes Museum, Margaret-st., W.).—8 P.M. Dr. G. Reid: Water Supply, Drinking Water, Pollution of Water.

Wednesday, October 14.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. C. Theodore Williams: Varieties of Pneumonia. Royal London Ophthalmic Hospital: 8 P.M., Mr. A. Quarry Silcock: Glaucoma.
THE SANITARY INSTITUTE (Parkes Museum, Margaret-st., W.).—Prof. H. Robinson: Drainage.

Thursday, October 15.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. W. B. Cheadle: Diphtheria and its Treatment.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Tooth: Atrophic Palsies.—London Throat Hospital, Gt. Portland-street: 8 P.M., Mr. W. R. H. Stewart: The Examination of Ear Cases.
HARVEIAN SOCIETY OF LONDON.—Mr. Juler: The Pathology and Treatment of the chief forms of Ophthalmia (with Lantern Illustrations).
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Patients and Card Specimens at 8 P.M. Report of Committee on Mr. E. Treacher Collins's case of Intra-ocular Neoplasm.—Mr. G. Anderson Critchett: A case of double Subacute Glaucoma in a patient aged twenty-nine.—Mr. Treacher Collins: Magic Lantern Demonstration of Lesions in three Eyes lost by concussion.—Mr. W. M. Beaumont (Bath): Notes of a case of Exostosis of the Orbit.

Friday, October 16.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. C. Theodore Williams: Prognosis and Treatment of Pneumonia.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Prof. Crookshank: The Microscope and how to use it (Examination of Micrococci, Bacilli, and Spirilla).

Saturday, October 17.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Theo B. Hyslop: Hypochondriasis.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 8th, 1891.

Date.		Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Oct.	2	29·87	W.	50	48	100	63	45	·52	Bright
"	3	30·23	W.	48	46	99	60	43	..	Hazy
"	4	30·23	N.W.	51	49	101	65	47	..	Foggy
"	5	29·97	E.	48	47	86	62	45	..	Foggy
"	6	29·44	S.W.	57	55	70	63	47	·02	Cloudy
"	7	29·57	S.W.	55	52	98	63	52	·52	Cloudy
"	8	29·82	S.W.	51	50	101	63	48	·48	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.
All communications relating to the editorial business of the journal must be addressed "To the Editors."
Lectures, original articles, and reports should be written on one side only of the paper.
Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.
We cannot prescribe or recommend practitioners.
Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."
Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*
We cannot undertake to return MSS. not used.

ILL TREATMENT OF A MEDICAL MISSIONARY IN CHINA.

IN some countries medical missionaries are universally looked upon as benefactors, and in the event of native disturbances are less likely than other Europeans to be maltreated. In China unfortunately this is not so, there being native prejudices which lead many persons to say, and perhaps believe, that children are killed or mutilated for the purpose of preparing medicines. During the present excitement in China many Europeans, medical and lay, have suffered seriously. According to information recently received by an evening contemporary, Dr. Greig, while visiting Kirin on a medico-evangelistic tour, was awakened by some rough soldiers, who dragged him from the kang on which he was sleeping, and, after beating and kicking him, hung him up by his arms to an upright for some hours. Dr. Greig swooned several times with the pain. His native assistants were also roughly handled. He telegraphed for assistance to his brother-in-law, Dr. Young, who immediately started to his aid. The Rev. W. Robertson, of the U.P. Mission, telegraphed to the Consul here to use his authority and influence with the Tantai for the protection of Dr. Greig. Subsequently Mr. Ayrton, the Consul, received a telegram from Dr. Greig himself giving the above facts, and also stating that the attack had been made by soldiers, and not by robbers, as at first supposed, and that he was now a prisoner in Kirin. The reason given for the attack was the old story of stealing children in order to put out their eyes.

Vindex.—The gentleman called in has a legal claim. In the circumstances, however, it would be gracious not to press it.

Afrikander will find the subject noticed in our present issue.

ATTENDANCE AT SCOTCH BURGH COURTS.

To the Editors of THE LANCET.

SIRS,—May I ask your opinion and advice as to the position of a medical witness under the following circumstances?

A few days ago a message was left at my house, stating that "a prisoner in custody was suffering from a wound of the head, and wished the attendance of a surgeon, but that the police authority would not be responsible for any fee." I went to the police station and found the man suffering from a contused wound over the right eye, which required three stitches. Whilst I was present the prisoner, who was under the influence of drink and blamed one of the constables for causing the wound, made an attack upon the officer. I dressed the wound and left the office. In a day or two after this I was served with a summons to attend the burgh court as a witness to the assault,

which did. The prisoner pleaded guilty, and was fined £1. I afterwards asked the clerk for my fee as a witness, when I was informed that "I had no claim for a fee, as I was there as an ordinary witness to the assault in the police cell, and not as a professional witness."

I am not quite certain of my position legally, as any reference I have always infers the medical witness as giving evidence of a professional nature, and I would crave your opinion, or that of any of your readers who may have been placed in a similar position. My own opinion is that I have been very badly treated, and a mean advantage taken of my position—not from any desire, perhaps, of those immediately concerned in this case as the way in which the law is interpreted. I am not so anxious about the fee as that my time should not be so wasted again and myself cornered in the way I have been; and I fear that, unless a fee can be insisted upon, I may soon be placed in a similar position. Have I any right to a witness's fee in the above case, or should I decline to attend any prisoner unless the police are responsible for the fee? In a case like this it would be too bad to keep anyone locked up with such an injury and without surgical attendance. I am quite satisfied that the police did not think the wound was so serious until the clotted blood was removed; but had the injuries been even more serious, and with such a message, if a surgeon had declined to go, and possibly the case proved fatal, would the profession or the public have freed him from the moral responsibility which even the receipt of such a message as "wound of the head" involved?

I am, Sirs, yours faithfully,

October, 1891. MARJORY.

Dr. F. P. Atkinson.—The apparatus referred to by our correspondent is certainly of the simplest order, and our attention had already been directed to it. But in the apparatus which was described in a recent issue a novel feature, and one possessing distinct advantages, as was pointed out, consisted in the arrangement whereby self-acting pneumatic closure is effected.

Etiquette.—The patient was essentially our correspondent's, and should have been so regarded by Dr. A. Our correspondent had been sent for and had previously attended the patient, who also had been under the care of his predecessor. We cannot doubt that a little reflection on these facts will bring Dr. A. to the same conclusion.

"THE TITLE OF F.R.C.S."

To the Editors of THE LANCET.

SIRS,—Referring to the letter of "L.R.C.P. Ireland" in your issue of to-day, I have to say that notwithstanding the misgivings of your correspondent, I cheerfully underwent the punishment of reading through his former letter a second time, and I have culled therefrom the following paragraph:—"As to the respective examinations of the English and Irish Colleges of Surgeons, each College admits a member or licentiate, as the case may be, to a *modified* examination, which is the best evidence in favour of mutually recognised equality, and the Irish Fellowship entitles army surgeons to promotion exactly as the English Fellowship does." I must admit that I gave these words the only construction that seemed open to one who, unfortunately for himself, is not a compatriot of the late Sir Boyle Roche. And if in doing so I have 'misunderstood" your correspondent, I must express my regret; but I cannot plead guilty to having "misquoted" him.

I am, Sirs, yours faithfully,

Brighton, Oct. 3rd, 1891. JAMES TURTON, F.R.C.S.Eng.

THE WEARING OF ACADEMIC ROBES.

To the Editors of THE LANCET.

SIRS,—There seems no reason, if "D.P.H." is a graduate of a University, why he should not wear the academic robes of his degree, if he wishes, at any public function. It has always appeared to me that medical men appear rather ashamed of donning their robes again after the "capping" function, except perhaps for photographic purposes. I was very glad to see Dr. J. Roberts Thomson, President of the British Medical Association, wear at the Bournemouth meetings the scarlet robe and hood of his degree. I shall be glad to see this example followed by presidents of other societies. I am, Sirs, yours truly,

Oct. 6th, 1891. CIVIS.

To the Editors of THE LANCET.

SIRS,—In answer to a query in your last issue, I can say that for some years it has been customary here for the medical officer of health to wear his academics at any function to which he is summoned, when the notice appears on the summons "Robes to be worn."

I am, Sirs, yours faithfully,

Portsmouth, Oct. 6th, 1891. B. H. MUMBY, M.D.

NOTIFICATION.

To the Editors of THE LANCET.

SIRS,—As a constant subscriber to your valuable journal, I should be glad if you would kindly inform me whether, under the Infectious Diseases Notification Act, 1889, I am obliged to report to my Local Authority any cases of "(English) Cholera" occurring in my practice.

I am, Sirs, yours faithfully,

SINENSIS.

*** The term English cholera is not included in Section 6 of the Infectious Diseases (Notification) Act, 1889; and the term "cholera" cannot in our opinion be held to mean so-called English cholera.—ED. L.

THE GRASS OIL OF INDIA.

As several inquiries have been made regarding the grass oil of India, we publish the address of the writer of the letter which appeared in our issue of Aug. 29th. It is as follows:—R. F. Hutchinson, M.D., 35, Clanricarde-gardens, London, W.

Dr. Oscar Frith (Welsh, Louisiana).—1. For an answer to the first question we must refer our correspondent to the text-books on Medicine.—2. The reply to this question is in the negative.

"PROVIDENT MEDICAL ASSOCIATIONS."

To the Editors of THE LANCET.

SIRS,—"A Friendly Societies' Surgeon" states some views of this question in full harmony with mine; but I cannot subscribe to the feeling of self-degradation or a lowering of professional feeling in accepting the post of officer to such an association. Firstly, we work among the poorest classes; secondly, we give them our whole time, experience, and attention, such as they may be; thirdly, we do so at the lowest possible expense to our patients; all of which I claim to be commendable and strictly honourable. Our position is looked down upon only by our brother medicos, who look upon us with a jealous eye, and stoop to every or any means of injuring us without provocation. In answer to "Fiat Lux," I would say that it is not the value of the fee that increases the dignity of the profession, but the amount of good we can do to suffering humanity, irrespective of the social status or wealth of purse. With regard to his charge of doing the local doctors an injury, I must retort that when they had these clubs they neither gave them proper attention, kindness, or even civility, all of which, I am safe in saying, they now receive. Further, does "Fiat Lux" consider the pay of a union doctor, or any other club doctor, adequate return for his work? If so, ours is more than doubly sufficient. Finally, I must lodge an objection against the condescending critical tone of those very people who do actions of a very much more doubtful character than any of ours.—I am, Sirs, yours obediently,

Oct. 6th, 1891. ANOTHER FRIENDLY SOCIETY'S SURGEON.

To the Editors of THE LANCET.

SIRS,—This question having again been brought forward for discussion in your columns, I write to indicate what has been proved in practice to be the true remedy for the grievance complained of by the medical men of Dunstable. Railing at these associations and at those who accept their appointments will not improve matters one whit. What ought to be done is that the medical men in each district should themselves start, maintain, and manage one of these societies, and should permit no interference from the "working man" or anybody else. At least one such society has been worked on these lines in a London suburb for ten years with perfect success, having an income of over £1100 and a membership of 5000 or 6000, of whom only a very small percentage is on the sick list at any one time.

I am, Sirs, yours faithfully,

Oct. 6th, 1891. W. G. D.

To the Editors of THE LANCET.

SIRS,—"A Friendly Societies' Surgeon" need not be surprised that a magistrate, coroner, and medical officer of health should eagerly seek for the position he resigned. In this district (Black Country) a medical officer of health and a county magistrate attends patients for the magnificent sum of 3*s.* per annum, or, deducting commission, 2*s.* 8*d.* Children at a reduced "fee." Is this conducive to the dignity of the profession? Is this fair to his medical brethren? For my part, I think it quite as dignified to hold an appointment from a medical association as to conduct a private practice at the above scale of charges; and I would sooner be a navvy, as your correspondent suggests, than do either.

I am, Sirs, yours faithfully,

Oct. 5th, 1891. GENERAL PRACTITIONER.

"AN APPEAL."

To the Editors of THE LANCET.

SIRS,—Would you permit me to acknowledge the receipt of the following additional sums for my case of urgent need? C. E. R., £2; W. M. B., £2 2*s.*; N. (Exeter), £1; Dr. Tomkins, 10*s.*; J. Corbet, Esq., M.P., £5. I beg also to say that the lady in question is now at 126, Fellows-road, South Hampstead, N.W., where she will receive any patients for nursing &c. that may be sent to her.

I am, Sirs, yours faithfully,

Stourbridge, October, 1891. R. L. BAYLEY.

THE TITLE OF "DR."

To the Editors of THE LANCET.

SIRS,—I see in an answer to "G. L. C." in your issue of October 3rd that you state that a Licentiate of the Royal College of Physicians is not entitled to put the prefix "Dr." before his name. Now I have done so, being an L.R.C.P.I., and previous to my so doing it was stated in one of your contemporaries that it was quite correct for a Licentiate of that College to do so.—I am, Sirs, yours faithfully,

October 6th, 1891. L.R.C.S.I., L. and L.M. R.C.P.I.

ERRATUM.—The line from the Æneid quoted by Sir George Humphry in his address last week contained a printer's error, which unfortunately escaped correction. It should read—

"Macte novâ virtute, puer; sic itur ad astra."

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Clifford Allbutt, London; Dr. F. P. Atkinson, Surbiton; Mr. Birchall, Liverpool; Mr. Berridge, Loughborough; Mr. Blount, Paris; Dr. Charlton Bastian, London; Mr. Bedborough, London; Dr. A. G. Bateman, London; Mr. J. C. Barr, London; Dr. Collie, London; Mr. Cornish, London; Dr. C. W. Chapman, London; Mr. C. L. Cunningham, Eastbourne; Mr. Chitton; Dr. Croucher, St. Leonards-on-Sea; Mr. Davis, London; Mr. Donninger, London; Messrs. Dawson and Sons, London; Mr. Damian, Trinidad; Mr. Eastwood, Blackburn; Messrs. Fannin and Co., London; Dr. Foxwell, Birmingham; Dr. Frith, Louisiana, U.S.A.; Mr. Fox, Manchester; Mr. Fitzpatrick, Birmingham; Mr. F. Fox, London; Dr. Gubb, London; Mr. E. Glover, Abaden; Mr. W. Gardner, London; Mr. J. Hutchinson, London; Mr. Hollings, Wakefield; Dr. Hime, Bradford; Mr. Hussey, Oxford; Mr. H. Huntley, Leatherhead; Dr. Gordon Holmes, London; Mr. Hawkings, London; Mr. Hunt, Manchester; Mr. Hornibrook, London; Dr. G. Hunter, Edinburgh; Mr. Jessett, London; Mrs. E. A. Jones, London; Dr. Kirk, Partick; Messrs. Kilner Bros., King's-cross; Messrs. Knight and Co., London; Mr. Ladd, Coventry; Dr. J. F. Little; Mr. Jordan Lloyd, Birmingham; Dr. Lewis, Bayswater; Dr. Lazarus-Barlow, London; Mr. H. K. Lewis, London; Dr. Menzies, London; Sir Wm. Moore, London; Mr. Mason, Burton-on-Trent; Messrs. Mitchell and Co., London; Mr. Martin, Paisley; Dr. Mumby; Messrs. Macmillan and Co., London; Dr. F. W. Mann, London; Dr. McMordie, Belfast; Mr. MacBryan, London; Mr. Morris, Basingstoke; Messrs. Oliver and Boyd, Edinburgh; Mr. Onyon, Eye; Mr. Oliver, Preston; Mr. Procter, Leeds; Dr. F. C. Palmer, Woking; Mr. Pearl, London; Dr. Railton, Manchester; Dr. Rigby, Preston; Messrs. J. Richardson and Co., Leicester; Mr. Randle, Hastings; Messrs. Rocke, Hawkins, and Co.; Dr. T. D. Reed, Montreal; Dr. R. H. Rideal, Preston; Mr. H. Sewill, London; Dr. Stevenson, Jedburgh; Messrs. Smith and Sons, London; Mr. Stock, London; Dr. Shore, London; Dr. H. Lyon Smith, Chester-le-Street; Dr. Sturges, London; Messrs. Street and Co., London; Mr. Stiven, Dundee; Dr. Sanderson, Loftus; Dr. W. R. Smith, London; Mr. Stechan, Ulverston; Dr. Sowinski, Woolwich; Mr. A. M. Sheild, London; Dr. Tibbits, London; Messrs. Tayler and Co., Notts; Mr. Tylecote, Staffs; Mr. Twyford, Hanley; Mr. Lawson Tait, Birmingham; Mr. Torrance, Blofield; Dr. Tytler, Ancoats; Dr. Turner, Edinburgh; Dr. Toller, Ilfracombe; Mr. Vickers, London; Mr. Wand, Leicester; Dr. Wells, London; Messrs. Wright and Co., Bristol; Mr. Watson, Glasgow; Mr. H. B. Williams, St. John's; Dr. P. W. Williams, Clifton; Mr. Wethered, Deal; Dr. T. Wilson, Wolverhampton; Dr. Yeo, Mayfair; S. S. S., London; O. K., London; Observer; Marjory; W. G. D.; Secretary, Cornwall County Asylum; Sylvanus, London; M.D., Plymouth; Secretary, Infirmary and Dispensary, Warrington; Afrikander; Good Health Publishing Co., Michigan, U.S.A.; M.D., Wimbledon; Lakes, London; Salford Union; Psyche, London; Sinensis; Secretary, Anderson's College Medical School, Glasgow; General Practitioner; C. M. L.; Liquor Carnis Co., London; Civis; L.R.C.S.I. & L.M.R.C.P.I.

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NEWSPAPERS.—*Nottingham Daily Guardian, Leeds Mercury, Liverpool Daily Post, Yorkshire Post, Bristol Mercury, Dundee Advertiser, Newcastle Daily Chronicle, Manchester Examiner and Times, Birmingham Daily Post, Glasgow Herald, Sussex Daily News, City Press, Reading Mercury, Windsor and Eton Gazette, Local Government Chronicle, West Middlesex Standard, Hertfordshire Mercury, Mining Journal, Weekly Free Press and Aberdeen Herald, Architect, Surrey Advertiser, Sunday Times, Law Journal, West Middlesex Advertiser, Builder, Broad Arrow, Chemist and Druggist, Metropolitan, Saturday Review, Cheetham and Crumpsall Guardian, Spectator, Pharmaceutical Journal, Cape Argus, Lincolnshire Chronicle, The South Africa, Western Gazette, Madras Times, Bombay Gazette, Insurance Record, The Herald (London), Piccadilly, Army and Navy Gazette, Nottingham Express, Citizen, Huddersfield Examiner, Midland Evening News, Leicester Post, La Presse Médicale (Belgique), Preston Herald, Hobart Mercury, East Anglian Daily Times, National Press (Dublin), Windsor and Eton Express, Essex Standard, Scotsman, &c.*, have been received.

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